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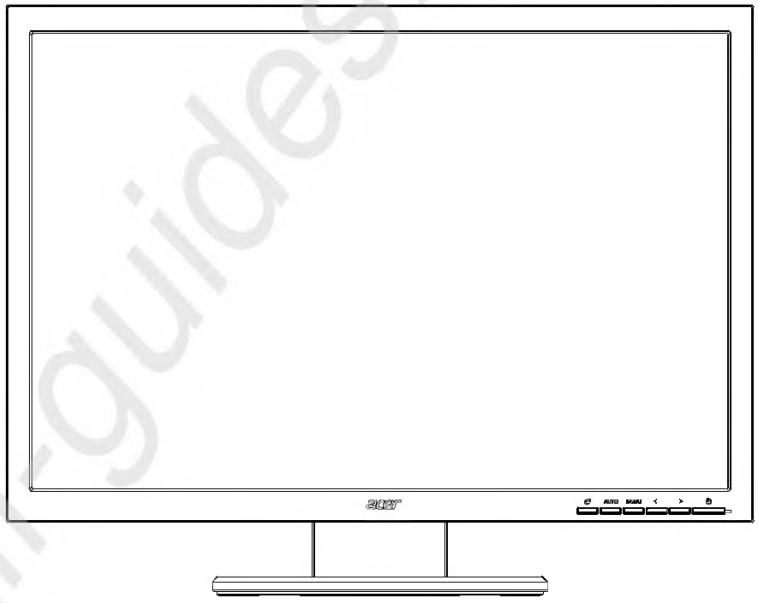
Service Manual



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Safety Notice

Any person attempting to service this chassis must familiarize with the chassis and be aware of the necessary safety precautions to be used when serving electronic equipment containing high voltage.

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Important Safety Notice

Product Announcement:

This product is certificated to meet RoHS Directive and Lead-Free produced definition. Using approved critical components only is recommended when the situation to replace defective parts. Vender assumes no liability express or implied, arising out of any unauthorized modification of design or replacing non-RoHS parts. Service providers assume all liability.

Qualified Repairability:

Proper service and repair is important to the safe, reliable operation of all series products. The service providers recommended by vender should being aware of notices listed in this service manual in order to minimize the risk of personal injury when perform service procedures. Furthermore, the possible existed improper repairing method may damage equipment or products. It is recommended that service engineers should have repairing knowledge, experience, as well as appropriate product training per new model before performing the service procedures.

NOTICE:

! To avoid electrical shocks, the products should be connect to an authorized power cord, and turn off the master power switch each time before removing the AC power cord.

! To prevent the product away from water or explosed in extremely high humility environment.

! To ensure the continued reliability of this product, use only original manufacturer's specified parts.

! To ensure following safety repairing behavior, put the replaced part on the components side of PWBA, not solder side.

! To ensure using a proper screwdriver, follow the torque and force listed in assembly and disassembly procedures to screw and unscrew screws.

! Using Lead-Free solder to well mounted the parts.

! The fusion point of Lead-Free solder requested in the degree of 220°C.

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1. Product Specification

1.1 Scope:

The M220ZGE-L20 model is a 22 inch wide TFT-LCD slimming module with a WLED light bar Backlight Unit and a 30-pin 2ch-LVDS interface. This module supports 1680 x 1050 WSXGA+ (16:10 wide screen) mode and displays up to 16.7 millions colors. The converter module for the Backlight Unit is not built in.

General display parameters:

Item	Specification	Unit
Screen Size	22	inch
Driver Element	a-Si TFT active matrix	-
Pixel Number	1680 x R.G.B. x 1050	pixel
Pixel Pitch	0.282(H) x 0.282(V)	mm
Pixel Arrangement	RGB vertical stripe	-
Display Colors	16.7 millions	color
Transmissive Mode	Normally White	-
Surface Treatment	Hard coating (3H), AG (Haze 25%)	-
Luminance, White	250 (typical)	Cd/m2
Color Gamut	72% of NTSC(Typ.)	-
TCO & RoHS compliance	TCO5.0 RoHS compliance	-
Power Consumption	Total15.76W (Max.) @ cell 4.5W (Max.), BL 10.608W (Max.	

Optical Characteristics:

The optical characteristics are measured under stable conditions at 25℃:

Item		Min.	Typ.	Max.	Unit
Module Size	Horizontal (H)	493.2	493.7	494.2	mm
	Vertical (V)	319.6	320.1	320.6	mm
	Thickness (T)	10.5	11	11.5	mm
Bezel Area	Horizontal	477.4	477.7	478	mm
	Vertical	299.8	300.1	300.4	mm
Active Area	Horizontal	-	473.76	-	mm
	Vertical	-	296.1	-	mm
Weight		-	2100	2250	g

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Item		Symbol	Condition	Min.	Typ.	Max.	Unit
Color Chromaticity (CIE 1931)	Red	Rx	θ_x=0°, θ_Y =0° CS-2000 R=G=B=255 Gray scale	Typ – 0.03	0.645	Typ + 0.03	-
		Ry			0.342		
	Green	Gx			0.309		
		Gy			0.620		
	Blue	Bx			0.151		
		By			0.059		
	White	Wx			0.313		
		Wy			0.329		
Center Luminance of White (Center of Screen)		L_C		200	250	-	cd/m^2
Contrast Ratio		CR		700	1000	-	-
Response Time		T_R	θ_x=0°, θ_Y =0°	-	1.3	2.2	ms
		T_F		-	3.7	5.8	
0		δW	θ_x=0°, θ_Y =0°	-	-	1.33	-
Viewing Angle	Horizontal	θx- + θx+	CR ≧ 10	150	170	-	Deg.
	Vertical	θy- + θy+		140	160	-	
Viewing Angle	Horizontal	θx- + θx+	CR ≧ 5	160	178	---	Deg.
	Vertical	θy- + θy+		150	170	---	

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LCD Panel	Driving system	TFT Color LCD
	Size	22 "W **(56 cm)**
	Pixel pitch	0.282(H) x 0.282(V)mm
	Brightness	250cd/m^2(Typical)
	Contrast	100,000,000:1Max. (ACM)
	Viewable angle	170° (H) 160° (V) (CR=10) 178°(H)170° (V) (CR=5)
	Response time	5ms (on/off)
	Panel Type	TN
	Video	R, G, B Analog Interface
	H-Frequency	30KHz – 80KHz
	V-Frequency	55-75Hz
Display Colors		16.7M Colors
Dot Clock		150MHz
Max. Resolution		1680 x 1050@60Hz
Plug & Play		VESA DDCCI/DDC2B
Power consumption @200cd/m^2	ON Mode	14.7W(typ.)
	Sleep Mode	0.53W(typ.)
	Off Mode	0.44W(typ.)
Input Connector		D-Sub DVI-D 24pin (Only Dual-Input Model) DP(Only DP-Input Model)
Input Video Signal		Analog:0.7Vp-p(standard), 75 OHM, Positive Digital signal (Only Dual-Input Model) DP(Only DP-Input Model)
Speakers		1W x 2(Only Audio-Input Model)
Maximum Screen Size		Horizontal:473mm Vertical:296mm
Power Source		100-240V~, 50/60Hz
Environmental Considerations		Operating Temp: 0° to 40°C Storage Temp: -20° to 60°C Operating Humidity: 10% to 90%
Dimensions		505.5 (W) x357.5~467.5(H) x 216(D)mm
Weight (N. W.)		6.0kg Unit (net)
Mechanism spec		Tilt: -5° to 20° Swivel: +45° to -45° Height adjustment: 0mm to 110mm Pivot: 0° to 90° Detachable foot stand: Detachable foot stand with screw release
External Controls:	Switch / Buttons	Power Button Auto/ Exit Left(<) /Right(>) E(Empowering) Key MENU/ENTER
	Functions	Contrast RGB Color temperature Brightness Language ACM On\Off OSD position. timeout Focus Auto configuration (only Analog input model) Clock Input signal Selection (only Dual input model) H. Position DDCCI On/Off V. Position Display information (Warm) Color Reset (Cool) Color Exit
* All specifications are subject to change without notice.		

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1.2 General Requirements:

1.2.1 Test Condition:

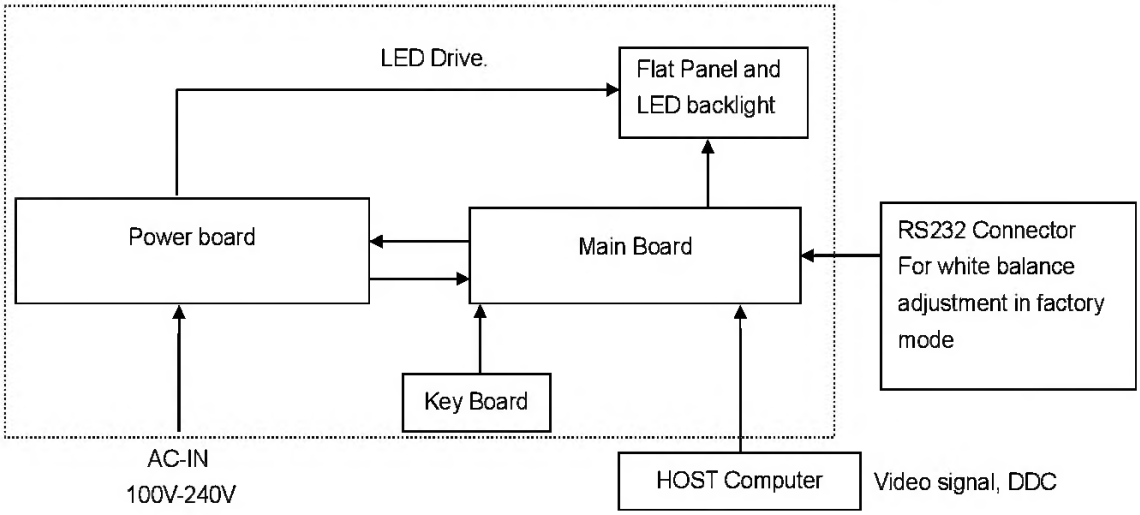
All tests must be performed under "standard testing conditions" unless otherwise specified.

Warm up time	> 30 min.
AC supply voltage	230V± 5%, 50± 3 Hz
Ambient temperature	20°C ± 15°C
Humidity	65% ± 20%
Display mode	1680x1050, 60 Hz, Pixel Clock：148.5MHZ,all white
e-color mode	Set to "User" mode
Contrast control	Set to The value under user mode, which allows that the brightest two of 32 linear distributed gray-scales (0～ 700mv) can be distinguished.
Color temperature	6500°K
Brightness control	The value under user mode
Analog Input signal	700 mVss
Picture position and size	Factory preset value,
Viewing angle	90 ° H and V
Viewing distance	40 cm for LCD performance, 20 cm for LCD failures
Ambient illumination	Dark room (< 1 cd/m^2)

1.2.2 Test Equipment: CHROMA 6630.

1.3 Electrical:

This section describes the electrical requirement of the monitor. Below is the block diagram.



The LCD monitor will contain a main board, a power board and a key board which house the flat panel control logic, brightness control logic and DDC. The power board will provide AC to DC Inverter voltage to drive the backlight of panel and the main board chips each voltage. The function key board is used for OSD control, monitor power ON/OFF and the LED indicator for power status.

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1.3.1 Interface Connectors:

1.3.1.1 Power Adaptor and Connector:

The AC inlet connector shall be an IEC 320-C13 male power receptacle for connection to mains power. The power cord shall be gray or black with length of 1.8m + 10cm/-0cm. The power cord type is worldwide type.

1.3.1.2 Analog Connector, DVI Connector and Cable: The analog signal cable shall be Gray or black and 1.8m + 10cm/-0cm. The DVI signal cable shall be Gray or black and 1.8m + 10cm/-0cm.

A. D-SUB

PIN No.	Description	PIN No.	Description
1	Red Video	9	+5 v
2	Green Video	10	Logic Ground
3	Blue Video	11	Monitor ground
4	Monitor ground	12	DDC-Serial Data
5	DDC-Return	13	H-Sync.
6	Red Ground	14	V-Sync.
7	Green Ground	15	DDC-Serial Clock
8	Blue Ground		

B. DVI

PIN No.	Description	PIN No.	Description
1	TMDS data 2-	13	NC
2	TMDS data 2+	14	+5V Power
3	TMDS data2/4 Shield	15	GND(return for +5v,hsync,vsync)
4	NC	16	Hot Plug Detect
5	NC	17	TMDS data 0-
6	DDC Clock	18	TMDS data 0+
7	DDC Data	19	TMDS data 0/5 Shield
8	NC	20	NC
9	TMDS data 1-	21	NC
10	TMDS data 1+	22	TMDS Clock Shield
11	TMDS data1/3 Shield	23	TMDS Clock +
12	NC	24	DDC TMDS Clock-

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C. Power Board Connector

Power connector: CN902

Pin	Signal
1	MUTE
2	VOL
3	USB_CTRL
4	ON/OFF
5	DIM
6	+5V
7	+5V
8	NC
9	GND

D. Key Board Connector

Connector: CN001

Pin	Signal
1	LBADC1
2	LBADC2
3	POWER Key
4	LED_BLUE#
5	LED_RED#
6	GND

E. Flat Panel Connector

Connector: CN401

Pin	Signal	Pin	Signal
1	PANEL_ POWER	16	RXE1-
2	PANEL_ POWER	17	GND
3	PANEL_ POWER	18	RXE0+
4	GND	19	RXE0-
5	NC	20	RXO3+
6	NC	21	RXO3-
7	GND	22	RXOC+
8	RXE3+	23	RXOC-
9	RXE3-	24	GND
10	RXEC+	25	RXO2+
11	RXEC-	26	RXO2-
12	RXE2+	27	RXO1+
13	RXE2-	28	RXO1-
14	GND	29	RXO0+
15	RXE1+	30	RXO0-

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1.3.2 Input Signals:

Video Input Signals Range (Analog RGB Signal)

No.	Symbol	Item	Min	Max	Unit
1	Fh	Horizontal Frequency	30	83	kHz
2	Fv	Vertical Frequency	55	75	Hz
3	Fclk	Pixel Clock Frequency		148.5	MHz
4	Vih	High Level Input	2.4	5	V
5	Vil	Low Level Input	0	0.8	V
6	Video	RGB Analog Video Level	0	0.7	V

1.3.2.1 Video Signal Amplitudes:

The video inputs consist of Red, Green and Blue signals each has its own coaxial cable terminated at the monitor. These video signals are analog levels, where 0V corresponds to black, and 700mV is the maximum signal amplitude for the respective color. The video signal is terminated with 75 ohms.

1.3.2.2 Video Signal Termination Impedance:

The analog video signal termination shall be 75 ohm.

1.3.2.3 Synchronization (Sync) Signals:

The Horizontal Sync (HS) TTL signal is used to initiate the display of a horizontal line. HS may be either active high or active low according to the timing. The Vertical Sync (VS) TTL signal is used to initiate the display of a new frame. VS may be either active high or active low according to the timing.

1.3.2.4 Sync Signal Levels:

Level: L = 0V ~ 0.8V H = 2.4V ~ 5V

1.3.2.5 Abnormal Signal Immunity:

The monitor shall not be damaged by improper sync timing, pulse duration, absence of sync, abnormal input signal amplitude, or any other anomalous behavior of a graphics card.

1.3.3 User Controls and Indicators:

1.3.3.1 Power On/Off Switch:

The monitor shall have a power control switch visible and accessible on the front of monitor.

1.3.3.2 Power Indicator LED:

The monitor will be switched to "power saving" mode by the control signal from the display controller, as indicated by the amber-colored power LED.

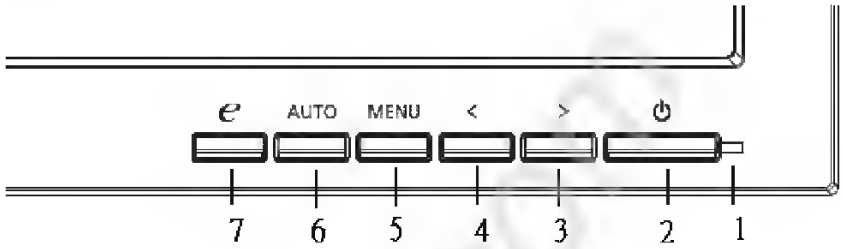
Mode	LED light
On	Blue
Power saving	Amber

1.3.3.3 On-Screen Display

On Screen Display system shall be used to control the monitor. Current setting will be saved and OSD will be tuned off when the keys are not touched for a period of time.

A) Key Function Overview

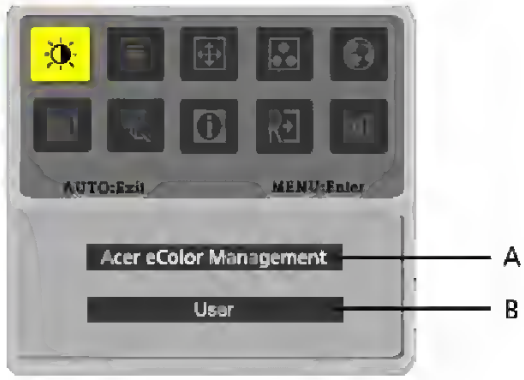
All functions are controlled by OSD buttons on the front of front bezel.



1 Power LED	Lights up to indicate the power is turned ON.
2 Power Switch	Turn the power on or off.
3,4 < / >	Press < or > to navigate to the desired function, press Enter to select the function. Press < or > to change the settings of the current function.
5 MENU / ENTER	Activate OSD menu when OSD is OFF or activate/de-activate adjustment function when OSD is ON.
6 Auto Adjust button / Exit	a. When the OSD menu is active, this button will act as the exit key (exit OSD menu). b. When the OSD menu is inactive, press this button for two seconds to activate the Auto Adjustment function. The Auto Adjustment function is used to set the HPos, VPos, Clock and Focus.
7 Empowering / Exit	a. When OSD menu is active, this button will act as the EXIT-KEY (EXIT OSD menu). b. When OSD menu is in off status, press this button to select scenario mode.

B) Menu Operation

When press "Menu" button from Front Bezel, user need to select which kind of function Menu he need to open



A. Acer eColor Management: If "Acer eColor Management" is selected, the Acer eColor management OSD will appear.

B. User: If "User" is selected, the standard OSD will appear.

C) OSD Function

Acer eColor Management
Contrast, Brightness, ACM
H-position, V-position
Clock, Focus
OSD position, Timeout
Color Select and adjust (warm, cool, user)
Language selected 1. ASIA OSD (English, Deutsch, French, Spanish, Italian, Japanese, Traditional Chinese, Simplified Chinese) 2. EMEA OSD (English, Deutsch, French, Spanish, Italian, Hollands, Finnish,Turkish, Polish, Русский, Portuguese)
Signal Input Select and DDC/CI Control (Analog, DDC/CI)
Display Information
Factory Reset
Exit

D) OSD Control Factory Default Values

eColor mode	Standard
Brightness	100
Contrast	50
ACM	Off
Color	Warm
Language	English
OSD H pos	50
OSD V pos	50
OSD Timeout	10s
DDC/CI	On
User R/G/B	50/50/50
Volume	70

1 3 4 Monitor Modes and Timing Capability

1 3 4 1 Format and Timing

The monitor shall synchronize with any vertical frequency from 55 to 75 Hz, and with any horizontal frequency from 30 to 80 KHz

1 3 4 2 Factory Assigned Display Modes

Mode	Resolution			
1	VGA	640x480	60	Hz
2	VGA	640x480	72	Hz
3	VGA	640x480	75	Hz
4	MAC	640x480	66.66	Hz
5	VESA	720x400	70	Hz
6	SVGA	800x600	56	Hz
7	SVGA	800x600	60	Hz
8	SVGA	800x600	72	Hz
9	SVGA	800x600	75	Hz
10	MAC	832x624	74.55	Hz
11	XGA	1024x768	60	Hz
12	XGA	1024x768	70	Hz
13	XGA	1024x768	75	Hz
14	MAC	1152x870	75	Hz
15	VESA	1152x864	75	Hz
16	VESA	1280x960	60	Hz
17	VESA	1280x720	60	Hz
18	WXGA	1280x800	60	Hz
19	WXGA+	1440x900	60	Hz
20	WSXGA+	1680x1050	60	Hz

1.4 Flat Panel

1.4.1 General Requirements

The panel shall be a 609.7mm (22"W) a-si TFT Active matrix LCD

1.4.2 Polarizer Hardness

The front polarizer should have hard coating (2. 3H) and anti-glare treatment

1.4.3 Backlight Requirements

1.4.3.1 General Requirements

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
LED Light Bar Input Voltage Per Input Pin	VPIN	33.6	37.2	40.8	V
LED Light Bar Current Per Input Pin	IPIN	---	65	69	mA
LED Life Time	LLED	40000			Hrs
Power Consumption	PBL	---	9.67	10.608	W

1.4.4 Defects

1.4.4.1 Defect Terminology:

Dark Spots / Lines: Spots or lines that appear dark in the display patterns and are usually the result of contamination. Defects do not vary in size or intensity (contrast) when contrast voltage is varied. Contrast variation can be achieved through the use of varying gray shade patterns.

Bright Spots / Lines: Spots or lines that appears light in the display patterns. Defects do not vary in size or intensity (contrast) when contrast voltage is varied. Contrast variation can be achieved through the use of varying gray shade patterns.

Polarizer Scratch: When the unit lights, lines appear light (white) with display patterns dark and do not vary in size. Physical damage to the polarizer does not damage the glass.

Polarizer Dent: When the unit lights, spots appear light (white) with display patterns dark and do not vary in size. Physical damage to the polarizer does not damage the glass.

Rubbing Line: Horizontal or diagonal lines that appear gray with the display patterns dark and may have resulted from an "out of control" rubbing process on the polyimide or "waves" on the BEFs or prism sheets.

Newton Ring: The "rainbow" effect caused by non-uniform cell thickness.

Mottling: When the unit lights, variation / non - uniformity (splotch) appears light (white) with the display and might vary in size.

Dim Line: When the unit lights, line(s) in the minor (vertical) or major (horizontal) axis appear dim, but not completely on or off.

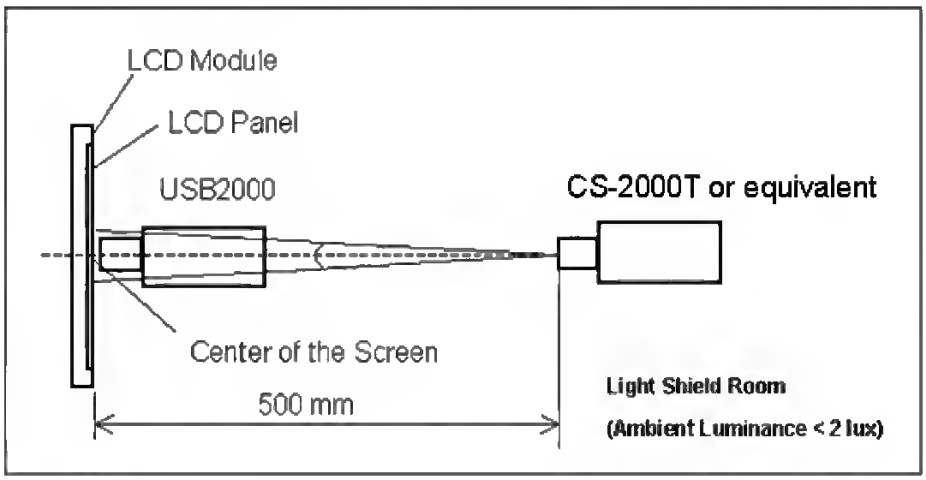
Cross Lines Off: When the unit lights, lines in both the minor and major axis do not appear.

Bright/Dark Dot: A sub - pixel (R, G, B dot) stuck off / on (electrical).

1.5 Optical Characteristics.

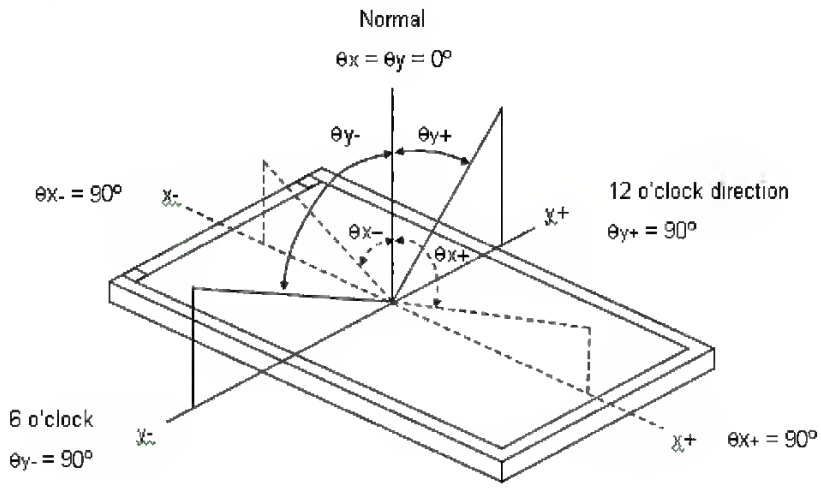
1.5.1 Measurement method

The LCD module should be stabilized at given temperature for 40 minutes to avoid abrupt temperature change during measuring. In order to stabilize the luminance, the measurement should be executed after lighting Backlight for 40 minutes in a stable, windless room.



1.5.2 **Definition of viewing angle** measured by ELDIM (EZContrast 88)

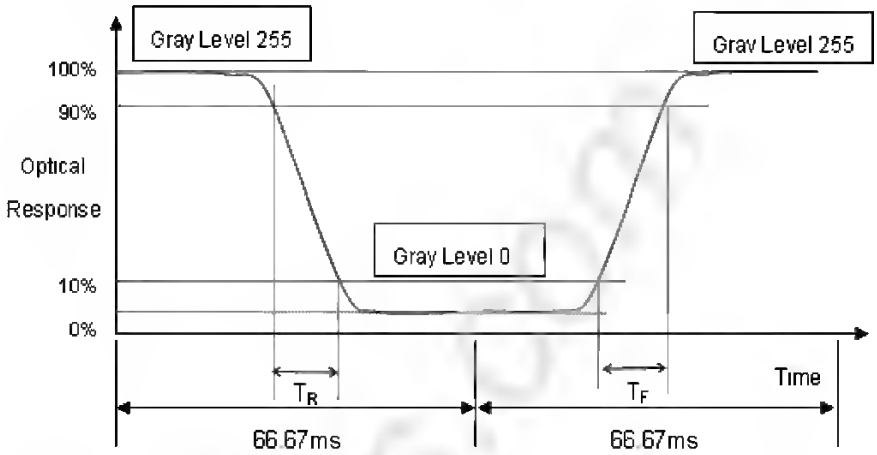
Viewing angle is the measurement of contrast ratio ≧10, at the screen center, over a 180° horizontal and 180° vertical range (off-normal viewing angles). The 180° viewing angle range is broken down as follows, 90° (_) horizontal left and right and 90° (_) vertical, high (up) and low (down). The measurement direction is typically perpendicular to the display surface with the screen rotated about its center to develop the desired measurement viewing angle.



1.5.3 Contrast ratio is measured by TOPCON SR-3

1.5.4 Definition of Response time measured by Westar TRD-100A

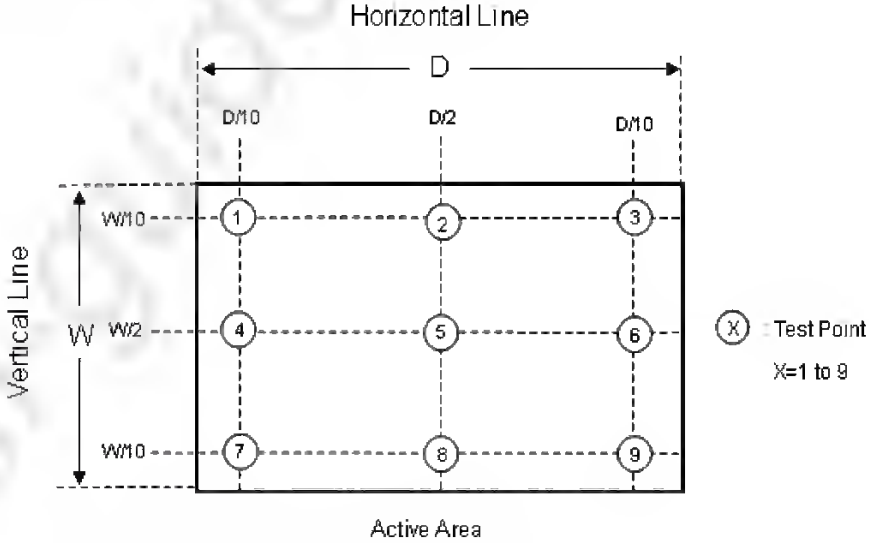
The output signals of photo detector are measured when the input signals are changed from "Full Black" to "Full White" (rising time, TrR), and from "Full White" to "Full Black" (falling time, TrF), respectively. The response time is interval between the 10% and 90% (1 frame at 60 Hz) of amplitudes



1.5.5 Color chromaticity and coordinates (CIE) is measured by TOPCON SR-3

1.5.6 Central luminance is measured by TOPCON SR-3v

1.5.7 Luminance uniformity of these 9 points is defined as below and measured by TOPCON SR-3



Uniformity = Maximum Luminance in 9 Points (1- 9) / Minimum Luminance in 9 points (1- 9)

1.6 Environmental Requirements

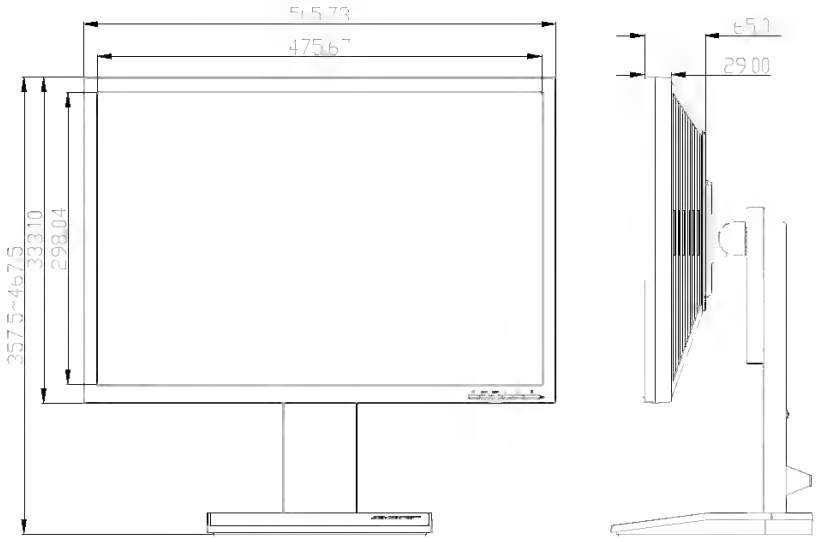
	Operating	Storage
Temperature	0°C - +40°C	-20°C - +60°C
Humidity	15% - 90%	15% - 90%
Altitude	12,000 feet (3,658m)	40,000 feet (12,192m)

1.7 Mechanical and Packing

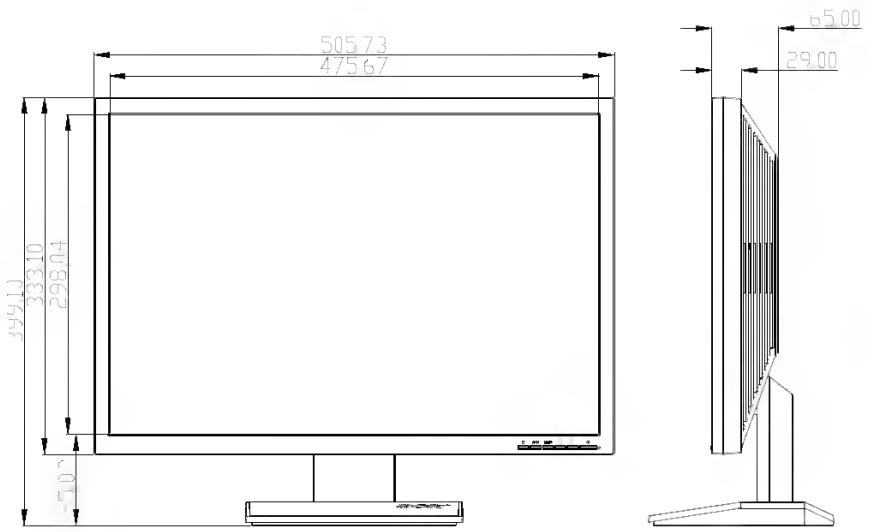
	Monitor	Packed Monitor
Width	506mm	TBD
Height	333-358mm	TBD
Depth	65mm	TBD
Weight	7.2kg	TBD

Dimension (mm):

B223PWL



V223PWL



2. OSD Menu

2.1 Key Definition

1. Power LED	Lights up to indicate the power is turned on.
2. Power Switch	Turn the power on or off
3.4 < / >	Press < or > to navigate to the desired function, press Enter to select the function. Press < or > to change the settings of the current function.
5.Menu/Enter	Activate the OSD menu when the OSD is off or activate / deactivate the adjustment function when the OSD is on.
6.Auto adjust button/Exit	a. When the OSD menu is active, this button will act as the exit key (exit OSD menu) b. When the OSD menu is inactive, press this button for two seconds to activate the Auto Adjustment function. The Auto Adjustment function is used to set the HPos, VPos, Clock and Focus
7 e /Exit	a. When the OSD menu is active, this button will act as the exit key (exit OSD menu). b. When the OSD menu is inactive, press this button to select scenario mode.

2.2 Function Menu

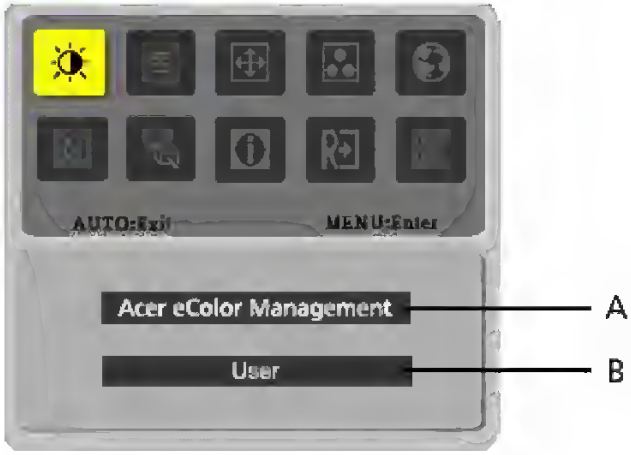
1) Display Function Menu while user press any function button

2.3 Main OSD Menu

2.3.1 OSD layout

a. Display OSD menu when user press "MENU" button on front bezel.

b. Layout as following figure.



A. Acer eColor Management: If "Acer eColor Management" is selected, the Acer eColor Management OSD will appear

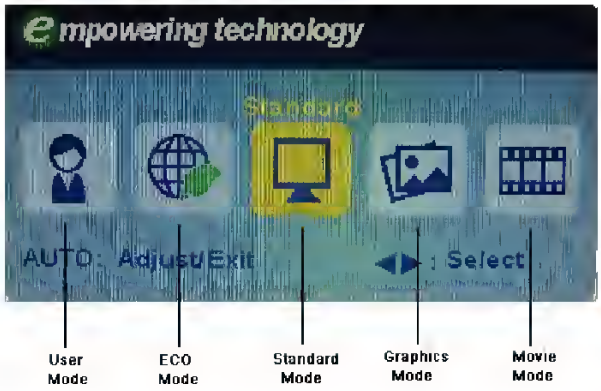
B. USER: If "User" is selected, the standard OSD will appear

Operation instructions

1 Press the e Empowering Key to open the Acer eColor Management OSD and access the scenario modes

2 Press "<" or ">" to select the mode

3 Press the Auto-adjust button to confirm the mode



Main menu icon	Sub menu item	Description
	User mode	User-defined. Settings can be fine-tuned to suit any situation.
	ECO mode	Adjusts the settings to reduce power consumption.
	Standard mode	Default settings. Reflects native display capability.
	Graphic mode	Enhances colors and emphasizes fine detail. Pictures and photographs appear in vibrant colors with sharp detail.
	Movie mode	Displays scenes in clearest detail. Presents great visuals, even in unsuitably-lit environments.

Main Menu Icon	Sub Menu Icon	Sub Menu Item	Description
		Contrast	Adjust the contrast between the foreground and background of the screen image
		Brightness	Adjust the background brightness of the screen image
		ACM	ACM (Adaptive Contrast Management)A CM ON/OFF Switch, default "OFF"
		Focus	Adjust picture Focus (available in analog mode only)
		Clock	Adjust picture Clock (available in analog mode only)

		H. Position	Adjust the horizontal position (available in Analog mode only)
		V. Position	Adjust the vertical position (available in Analog mode only)
	N/A	Warm	Set the color temperature to warm white
	N/A	Cool	Set the color temperature to cool white
	R	User /Red	Adjusts Red/Green/Blue intensity
	G	User /Green	
	B	User /Blue	

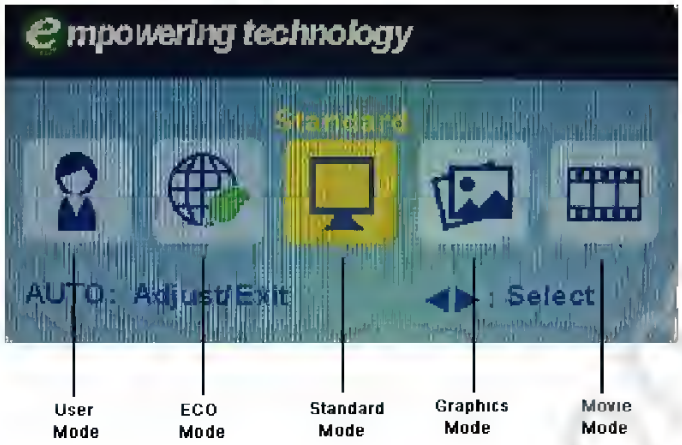
	N/A	English	Multi language selection
	N/A	繁體中文	
	N/A	Deutsch	
	N/A	Francais	
	N/A	Espanol	
	N/A	Italiano	
	N/A	简体中文	
	N/A	日本語	
	N/A	Suomi	EMEA version OSD only
	N/A	Nederlands	
	N/A	Русский	

		H. Position	Adjust the horizontal position of the OSD
		V. Position	Adjust the vertical position of the OSD
		OSD Timeout	Adjust the OSD timeout
	N/A	Analog	Select input signal from analog (D Sub)
	N/A	Digital (only Dual-InputModel)	Select input signal from digital(DVI) (only Dual-Input Model)
	N/A	DDC/CI	Turn ON/OFF DDC/CI support
	N/A	Information	Show the resolution, H/V frequency andinput port of current input timing
	N/A	Reset	Clear each old status of Auto configurationand set the color temperature to Warm
	N/A	Exit	Save user adjustment and OSD disappear

2.4 Acer eColor management

a. If selected to "Acer eColor Management" item, will appear the Acer eColor OSD

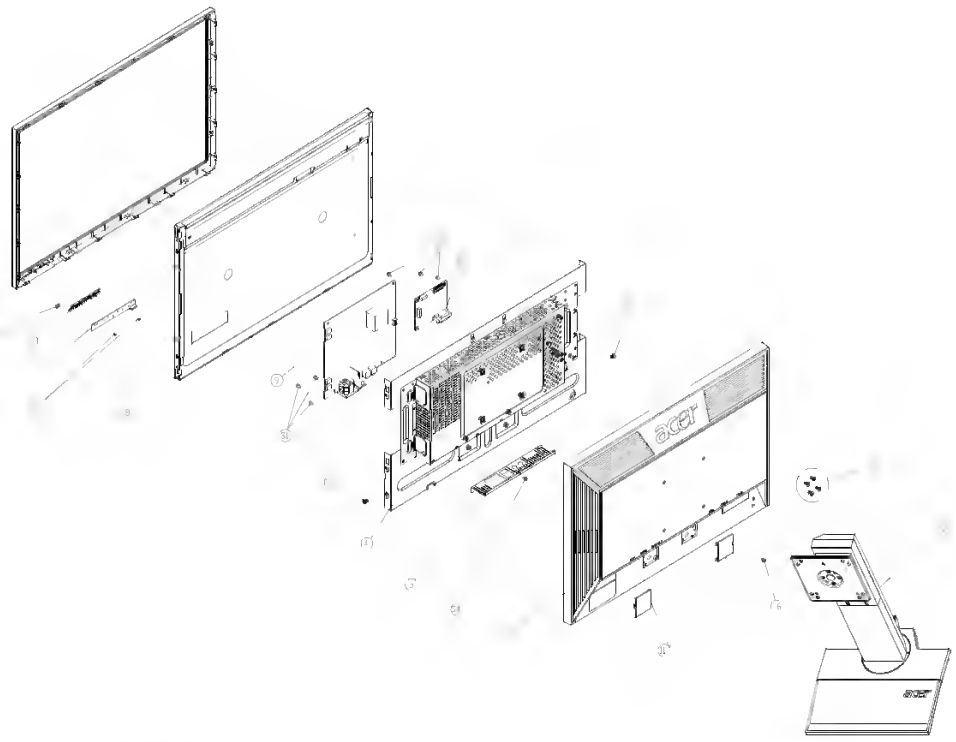
b. USER: If "USER" item is selected, the standard OSD will appear


empowering technology
Standard
AUTO: Adjust/Exit
: Select
User Mode
ECO Mode
Standard Mode
Graphics Mode
Movie Mode

3. Exploded Diagram

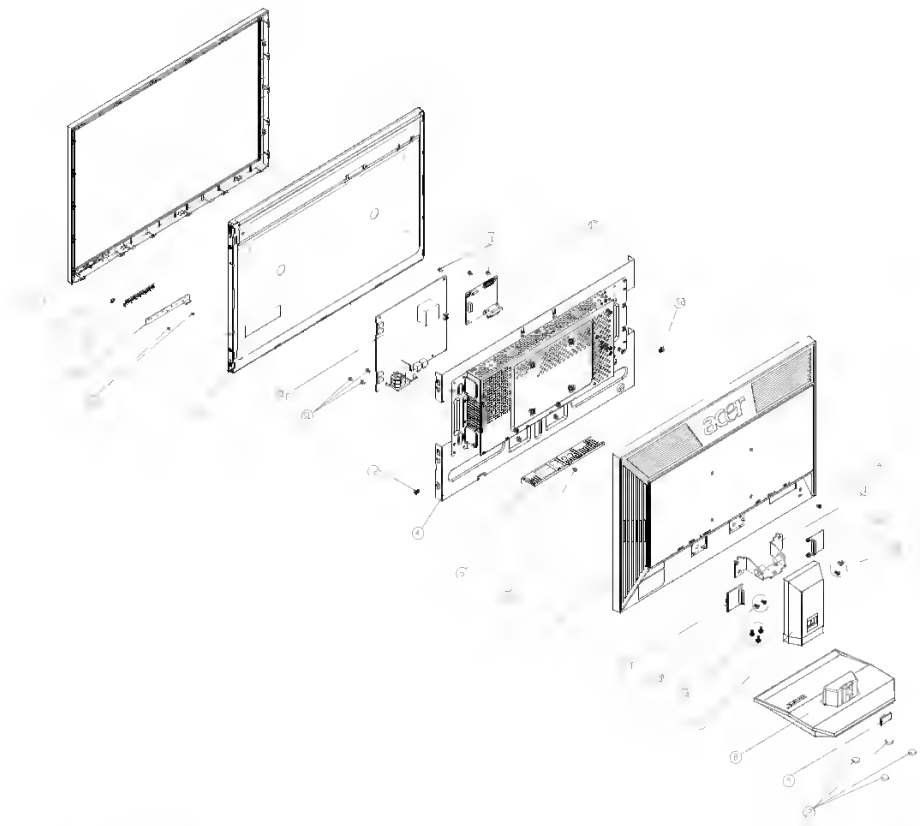
3.1 Product Exploded Diagram

B223PWL



Note The parts information listed below are for reference only, and are subject to change without notice

Item	Description	TPV PART NO.	Acer Part No.
1	A34G0721BBNI1B0130	BEZEL	N/A
2	A33G0378 1 1C0100	LENS_POWER	N/A
3	A33G0379BBN 1L0100	KEY_FUNCTION	N/A
4	Q15G1166104	MAINFRAME	33 LW8M2 001
5	Q85G0210101	SHIELD_AUDIO	N/A
6	Q34G7417AEMAZB0130	REAR_COVER	60 LW8M2 001
7	KEPC8QK4	KEY BOARD	55 LBZ0B 005
8	750GBM220ZGK12N000	PANEL	KL 2200D 001
9	ADPCC1403YDF	POWER BOARD	55 LW8M2 002
10	756GQCCB0AE0020000	MAIN BOARD	55 LW8M2 001
11	A33G0381AEM 1L0100	COVER HINGE	N/A
12	Q37G0085018 B1	STAND-BASE ASS'Y	60 LRQM2 003
S1	0D1G1030 6120	SCREW(BOARDS/MAINFRAME)	N/A
S2	0M1G 130 6120	SCREW(BOARDS/MAINFRAME)	N/A
S3	Q01G6055 1	SCREW(REAR_COVER/ STAND-BASE ASS'Y)	N/A
S4	0M1G 330 4120	SCREW(MAINFRAME/ MAIN BOARD)	N/A
S5	Q01G6019 2	SCREW(KEY BOARD/ BEZEL)	N/A
S6	0M1G3030 6120	SCREW(REAR COVER/ MAINFRAME)	N/A



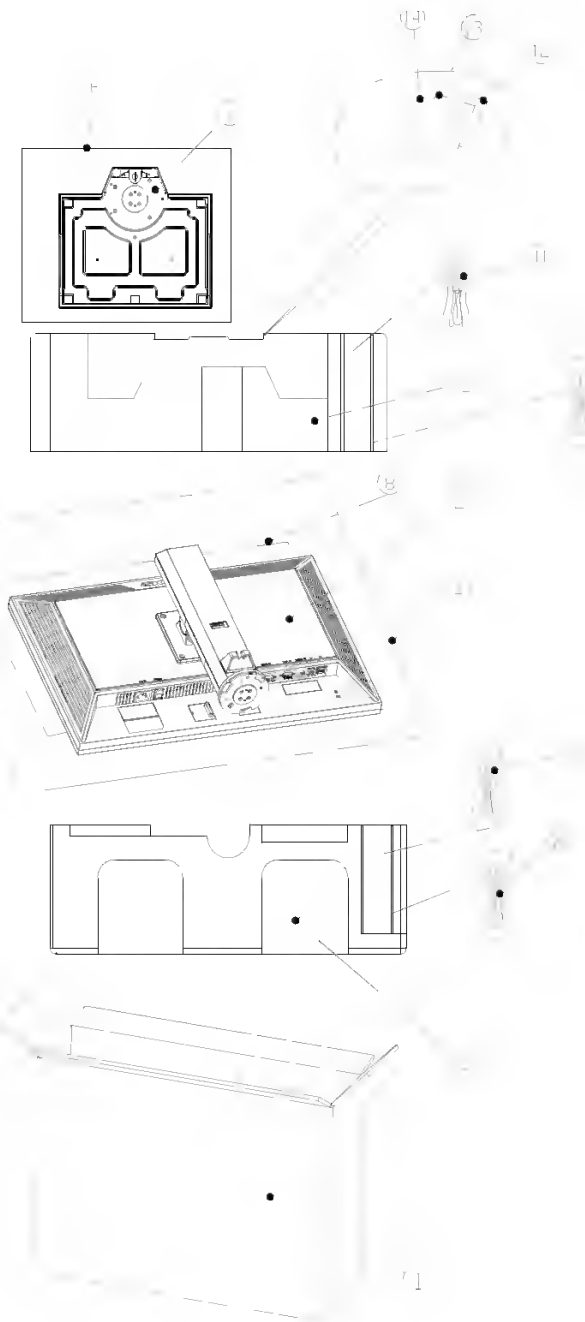
Note: The parts information listed below are for reference only, and are subject to change without notice.

Item	Description	TPV PART NO.	Acer Part No.
1	A34G0721AEMM1B0130	BEZEL	N/A
2	A33G0378 1 1C0100	LENS_POWER	N/A
3	A33G0379AEM 1L0100	KEY_FUNCTION	N/A
4	Q15G1166104	MAINFRAME	33 LW8M2 001
5	Q85G0210301	SHIELD_AUDIO	N/A
6	Q34G7417AEMAYB0100	REAR_COVER	60 LWBM2 001
7	A34G0723AEM 1B0100	STAND	N/A
8	A34G0724AEM 1B0230	BASE	N/A
9	A33G0380AEM 1L0100	DECO_BASE	N/A
10	A33G0382AEM 1L0100	COVER_HINGE	N/A
11	A37G0074 5	HINGE	N/A
12	Q12G6600 6	FOOT	N/A
13	ADPCC1403YDG	POWER BOARD	55 LWBM2 001
14	756GQCCB0AE0020000	MAIN BOARD	55 LW8M2 001
15	750GBM220ZGK12N000	PANEL	KL 2200D 001
16	KEPC8QK4	KEY BOARD	55 LBZ0B 005
S1	0D1G1030 6120	SCREW(BOARDS/MAINFRAME)	N/A
S2	0M1G 130 6120	SCREW(BOARDS/MAINFRAME)	N/A

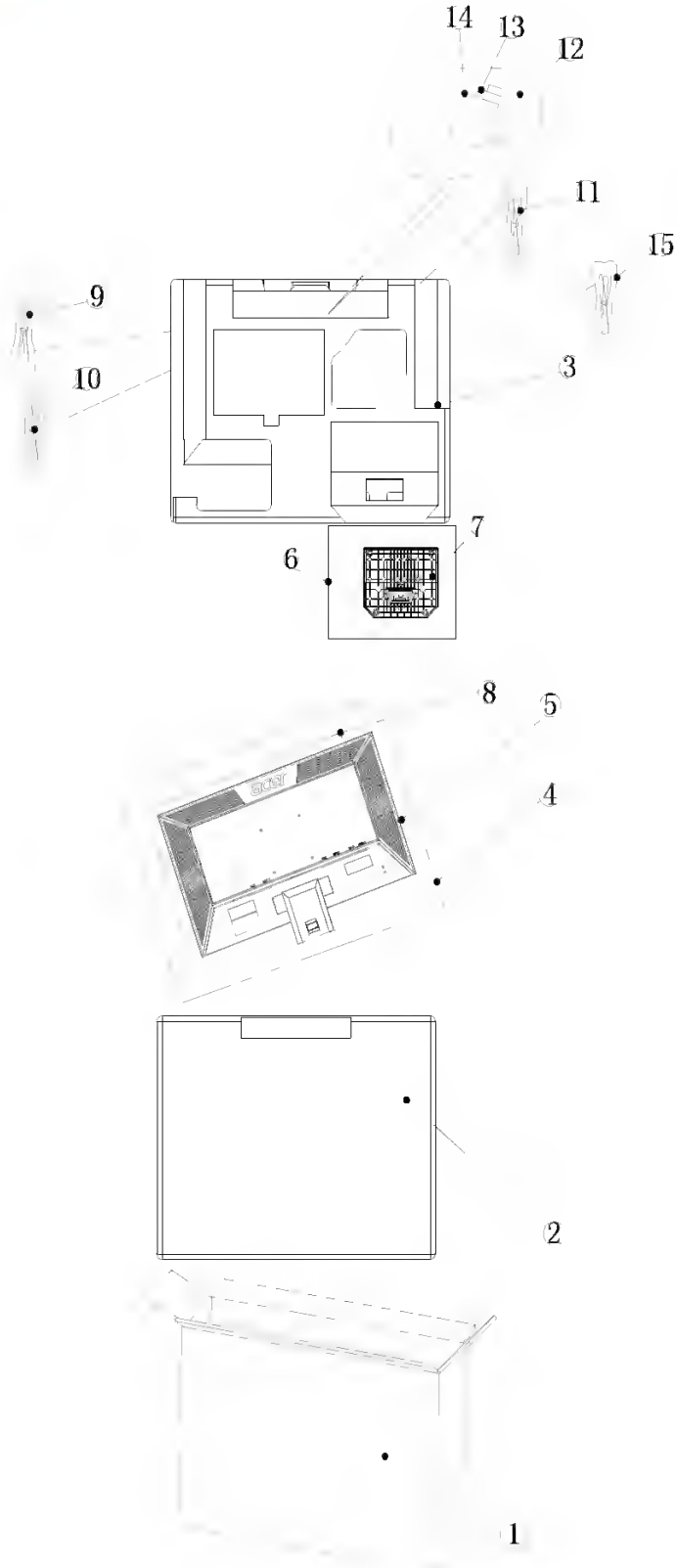
S3	0M1G 140 8125	SCREW(REAR_COVER/ HINGE)	N/A
S4	0M1G1740 10120	SCREW(STAND/ HINGE)	N/A
S5	0M1G 330 4120	SCREW(MAINFRAME/ MAIN BOARD)	N/A
S6	Q01G6019 2	SCREW (BEZEL/ KEY BOARD)	N/A

3 2 Packing Exploded Diagram

B223PWL



ITEM	DESCRIPTION	QT'S
1	CARTON	1
2	EPS-1	1
3	EPS-2	1
4	EPE BAG FOR MONITROT	1
5	HEAR OF MONITOR	1
6	PE BAG FOR BASE	1
7	BASE	1
8	FILM	1
9	DVI CABLE	1
10	POWER CABLE	1
11	SIGNAL CABLE	1
12	WARRANTY CARD	1
13	CD	1
14	QSG	1
15	DP CABLE	1

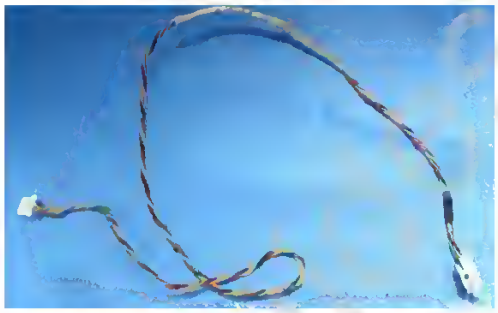


ITEM	DESCRIPTION	QT'S
1	CARTON	1
2	EPS-1	1
3	EPS-2	1
4	EPE BAG FOR MONITROT	1
5	HEAR OF MONITOR	1
6	PE BAG FOR BASE	1
7	BASE	1
8	FILM	1
9	DVI CABLE	1
10	POWER CABLE	1
11	SIGNAL CABLE	1
12	WARRANTY CARD	1
13	CD	1
14	QSG	1
15	DP CABLE	1

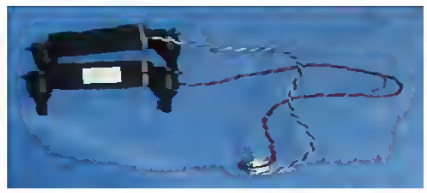
4. Assembly and Disassembly Procedures

4.1 Assembly Procedures for B223PWL

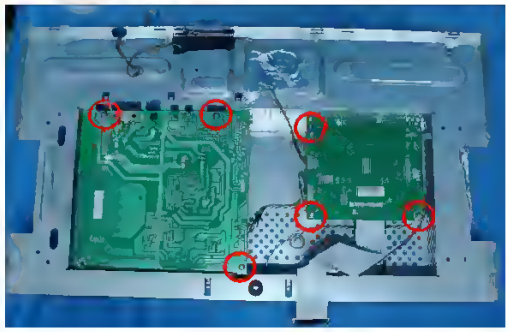
S1 Prepare a main board, a power board, and some essential cables. Connect every cable as the below picture



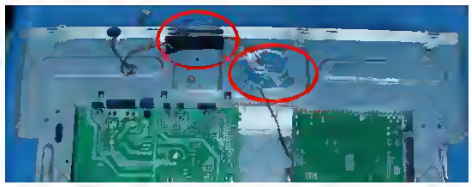
S2 Prepare a speaker and a MAINFRAME. And then assemble speaker to MAINFRAME. Put the cable through the hole as below picture remarked in yellow circle. Pull the speaker rubbers to fasten them as below picture.



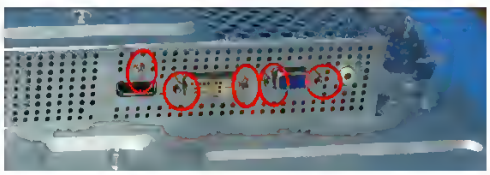
S3 Turn over the circuit boards, use a Phillips-head screwdriver to tighten six screws(remarked in red circles) till the power board and main board with MAINFRAME are firmly attached



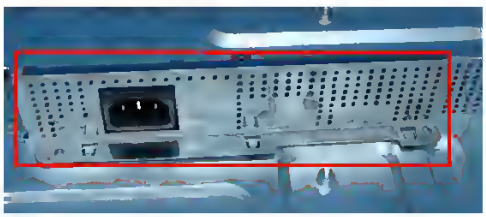
S4 Locate the key board cable and fix the cable on the specific position as the below picture remarked in red circle.



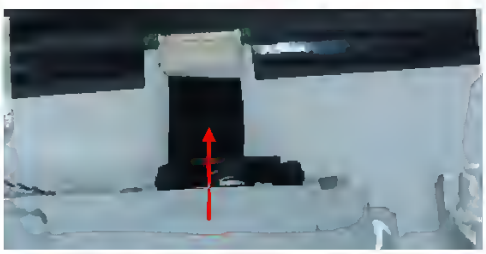
S5 Turn over the MAINFRAME. Use a Hex-head screwdriver to tighten four screws and use a Philips-head screwdriver to unscrew a screw for locking the VGA connector and DVI connector.



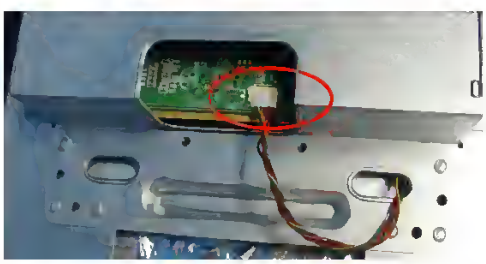
S6 Assemble the SHIELD_AUDIO.



S7 Prepare a panel. Assemble panel and MAINFRAME. Put the MAINFRAME on the panel and connect the FFC cable (main board to panel). Stick the tape as below right picture.

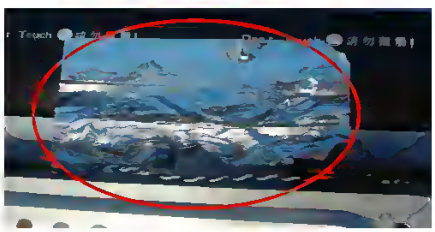


S8 Connect the wires (power board to panel) as below picture.



S9 Place the bezel on a protective cushion. Put the key board into the bezel and tighten two screws as the below picture

S10 Put the MAINFRAME and panel on the bezel. Stick the tapes and Connect the key board cable to the key board as below picture



S11 Prepare a rear cover to assemble

S12 Prepare a BASE_ASS'Y Tighten four screws

S13 Put on the assembled units

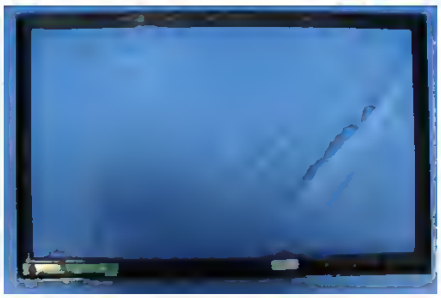
4 2 Disassembly procedures for B223PWL

S1 Remove the assembled units, and then Unscrew four screws to remove the BASE_ASS'Y

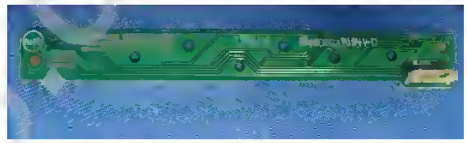
S2 Remove the rear cover.

S3 Disconnect the key board cable.

S4 Remove the bezel

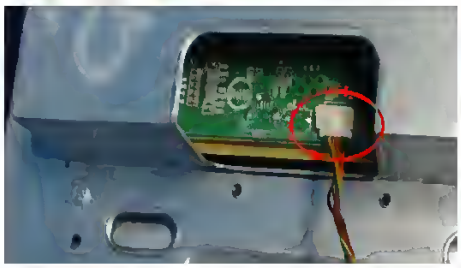


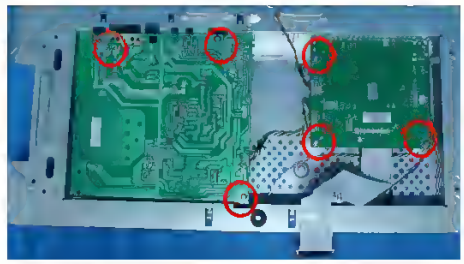
S5 Unscrew the two screws to remove the key board



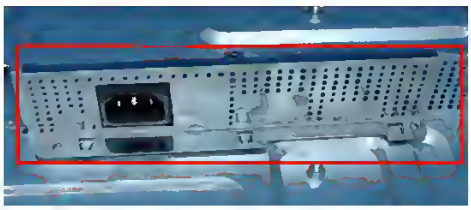
S6 Lift to move the mainframe a little to tear up the tape and disconnect the FFC cable (main board to panel)

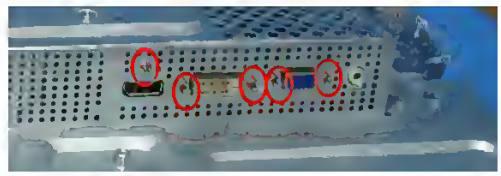
S7 Disconnect the wires (power board to panel) as below picture to remove the MAINFRAME away from panel, Use a Philips-head screwdriver to unscrew six screws after turn it over



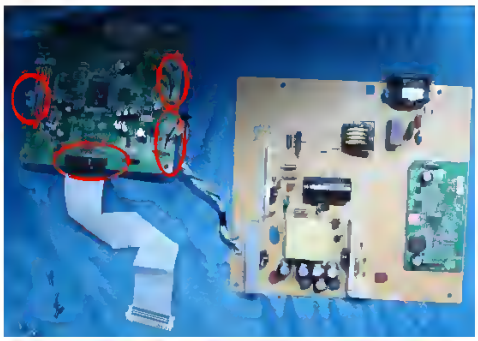


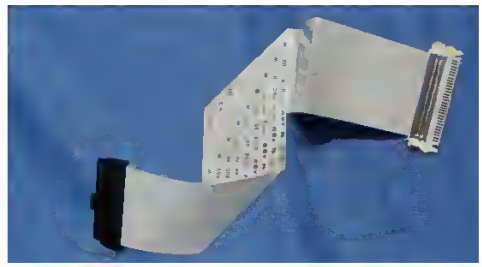
S8 Remove the SHIELD_AUDIO Use a Hex-head screwdriver to unscrew the screws for VGA connector and DVI connector.

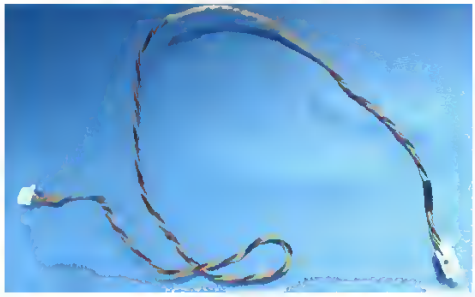




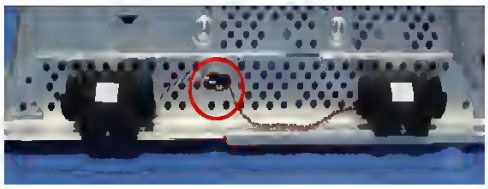
S9 Disconnect the speaker cable to remove the main board and power board and main board to key board cable, main board to power board cable





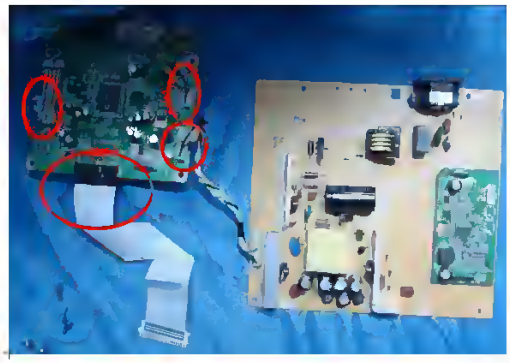


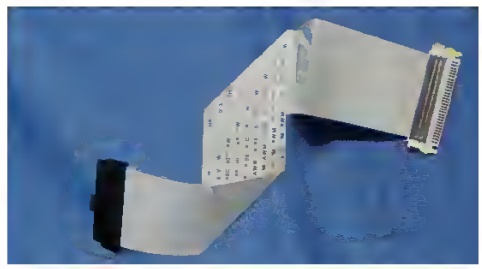
S10 Pull the speaker cable out of the hole remarked in red circles Remove the speaker away from the MAINFRAME



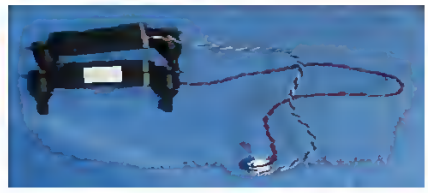
4 3 Assembly Procedures for V223PWL

S1 Prepare a main board, a power board, and some essential cables. Connect every cable as the below picture

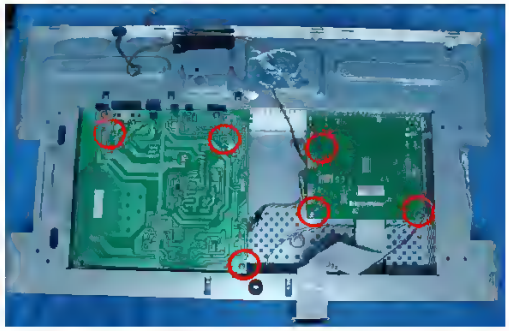




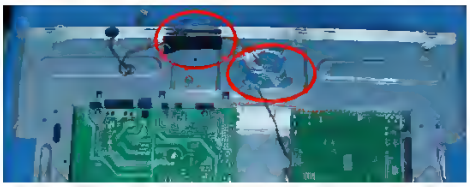
S2 Prepare a speaker and a MAINFRAME. And then assemble speaker to MAINFRAME. Put the cable through the hole as below picture remarked in yellow circle. Pull the speaker rubbers to fasten them as below picture



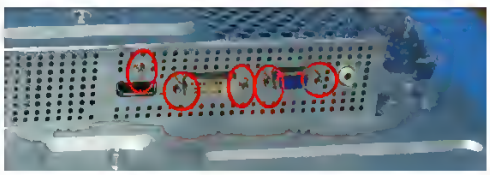
S3 Turn over the circuit boards, use a Philips-head screwdriver to tighten six screws(remarked in red circles) till the power board and main board with MAINFRAME are firmly attached.



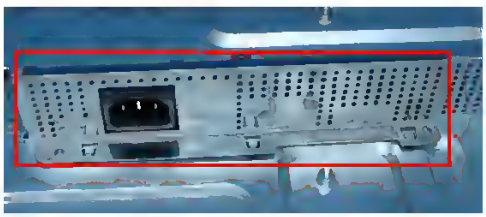
S4 Locate the key board cable and fix the cable on the specific position as the below picture remarked in red circle.



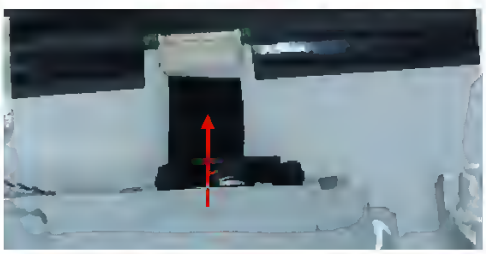
S5 Turn over the MAINFRAME. Use a Hex-head screwdriver to tighten four screws and use a Philips-head screwdriver to unscrew a screw for locking the VGA connector and DVI connector.



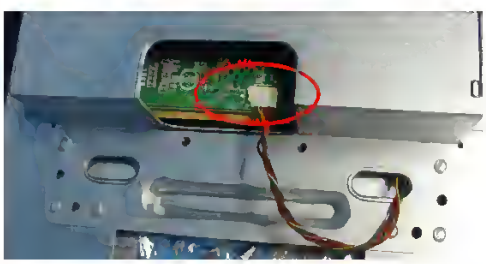
S6 Assemble the SHIELD_AUDIO.



S7 Prepare a panel. Assemble panel and MAINFRAME. Put the MAINFRAME on the panel and connect the FFC cable (main board to panel). Stick the tape as below right picture.



S8 Connect the wires (power board to panel) as below picture.

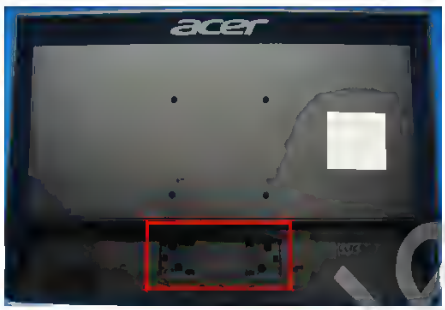


S9 Place the bezel on a protective cushion. Put the key board into the bezel and tighten two screws as the below picture.

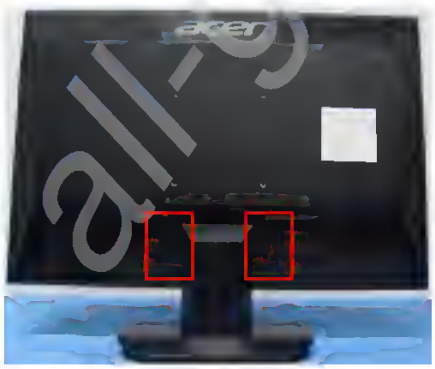
S10 Put the MAINFRAME and panel on the bezel. Stick the tapes and Connect the key board cable to the key board as below picture.

S11 Prepare a rear cover to assemble

S12 Prepare a BASE_ASS'Y Tighten four screws



S13 Put on the assembled units



4 4 Disassembly procedures for V223PWL

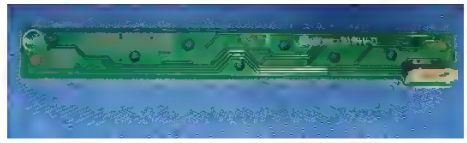
S1 Remove the assembled units, and then unscrew four screws to remove the BASE_ASS'Y.

S2 Remove the rear cover.

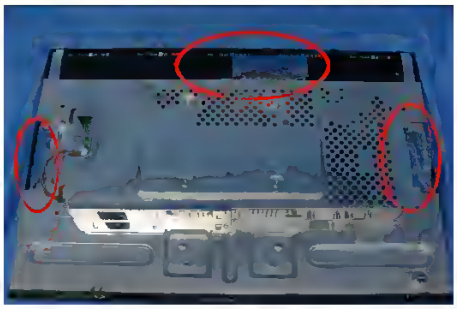
S3 Disconnect the key board cable.

S4 Remove the bezel

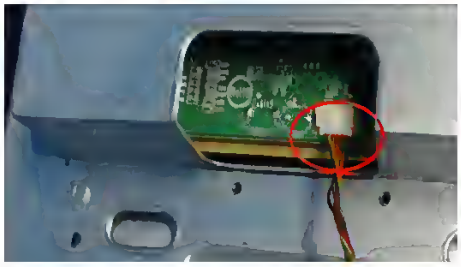
S5 Unscrew the two screws to remove the key board

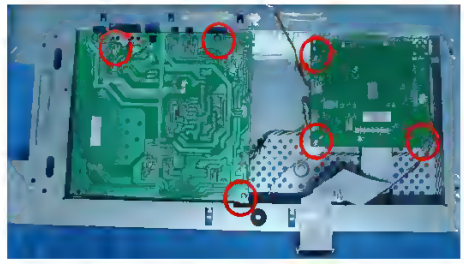


S6 Lift to move the mainframe a little to tear up the tape and disconnect the FFC cable (main board to panel)

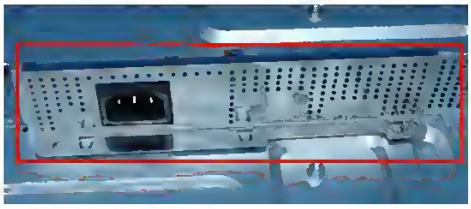


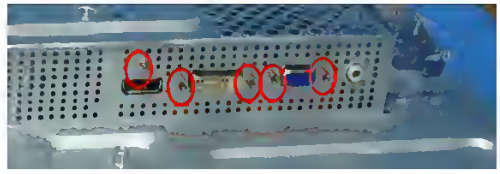
S7 Disconnect the wires (power board to panel) as below picture to remove the MAINFRAME away from panel, Use a Philips-head screwdriver to unscrew six screws after turn it over



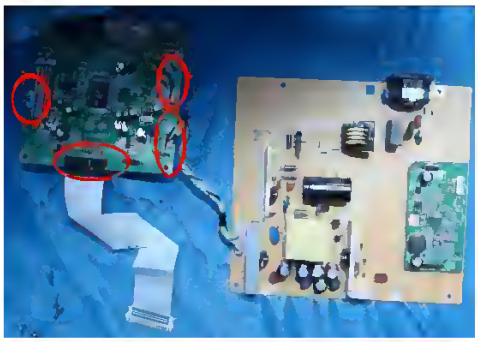


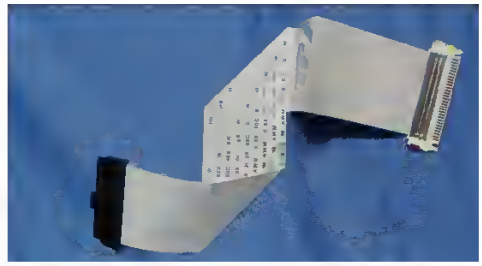
S8 Remove the SHIELD_AUDIO. Use a Hex-head screwdriver to unscrew the screws for VGA connector and DVI connector



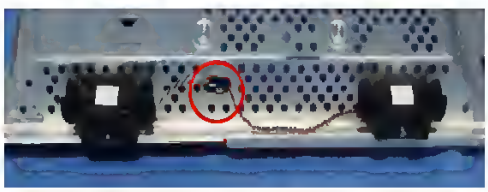


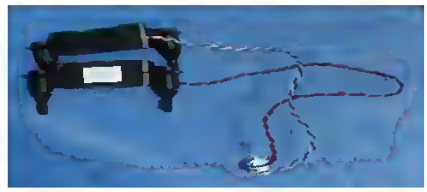
S9 Disconnect the speaker cable to remove the main board and power board and main board to key board cable ,main board to power board cable.





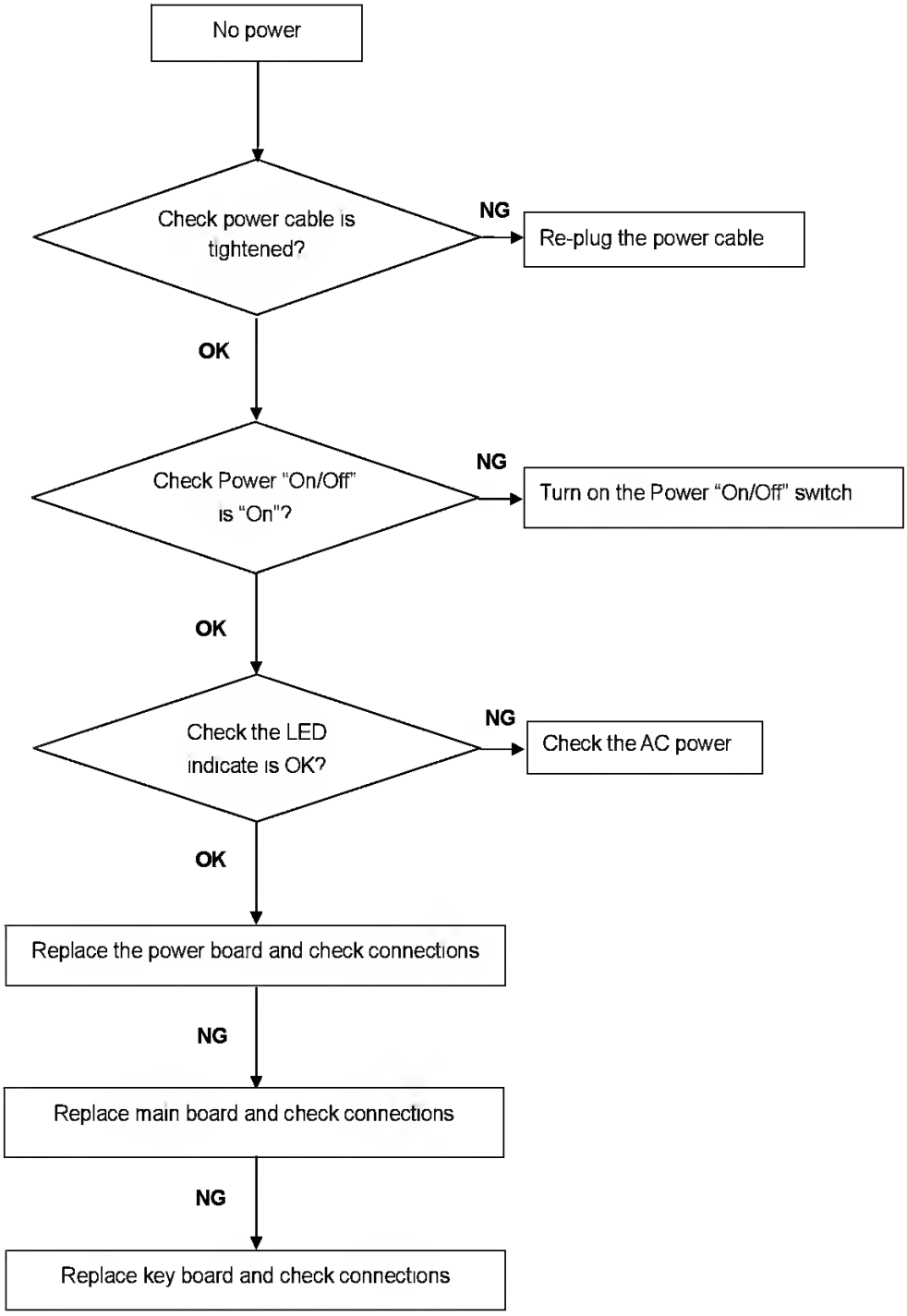
S10 Pull the speaker cable out of the hole remarked red. Remove the speaker away from the MAINFRAME.



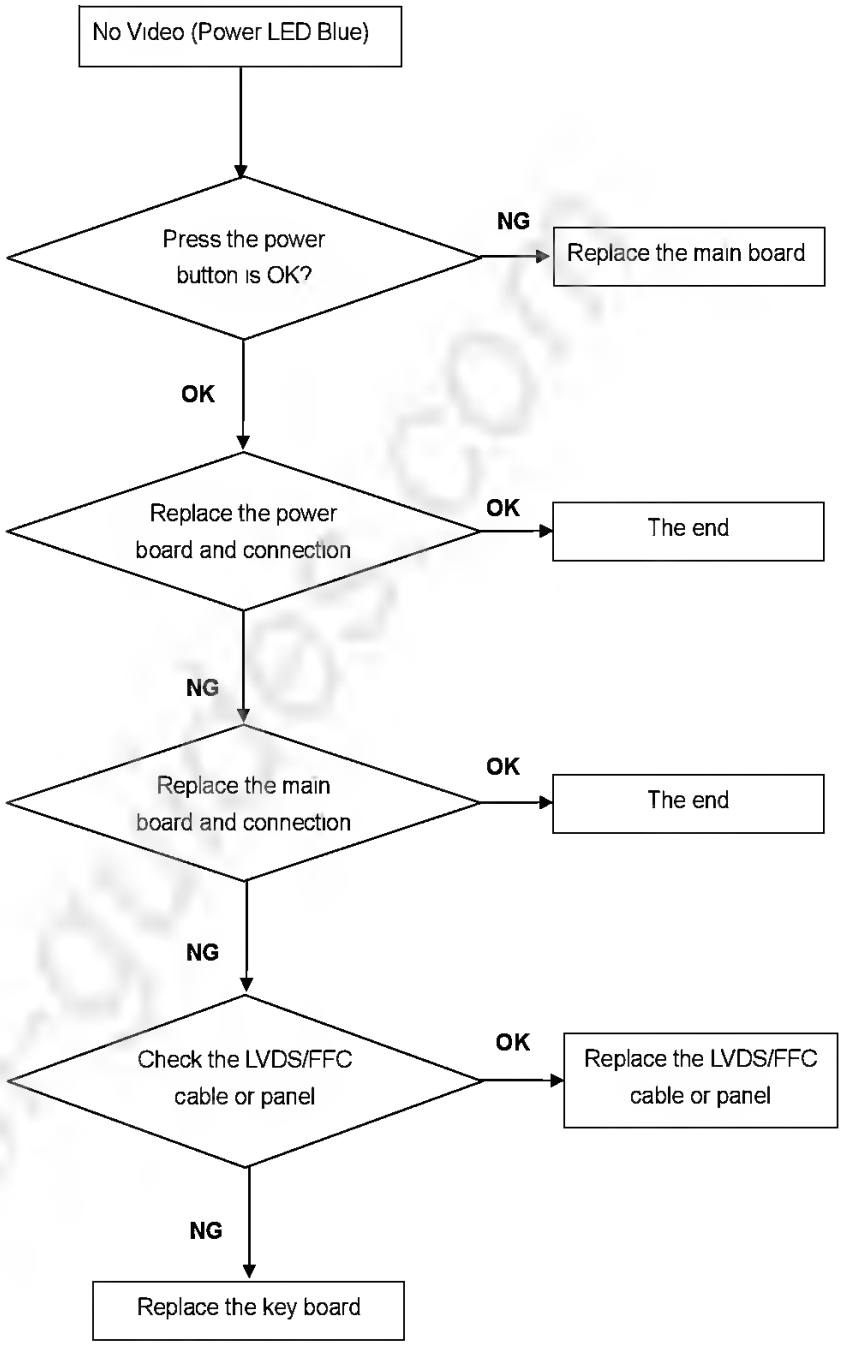


5. Troubleshooting

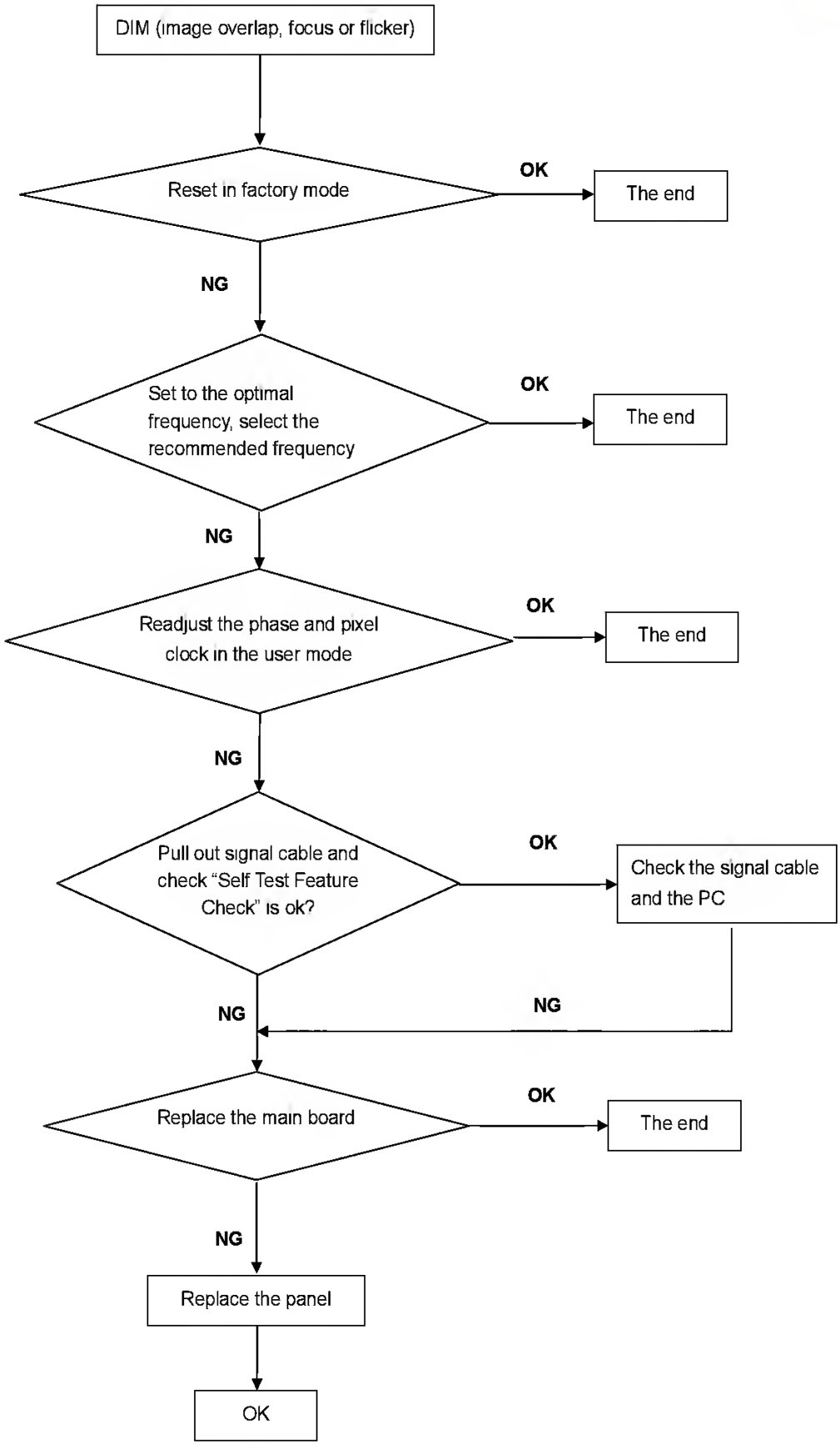
1 No Power



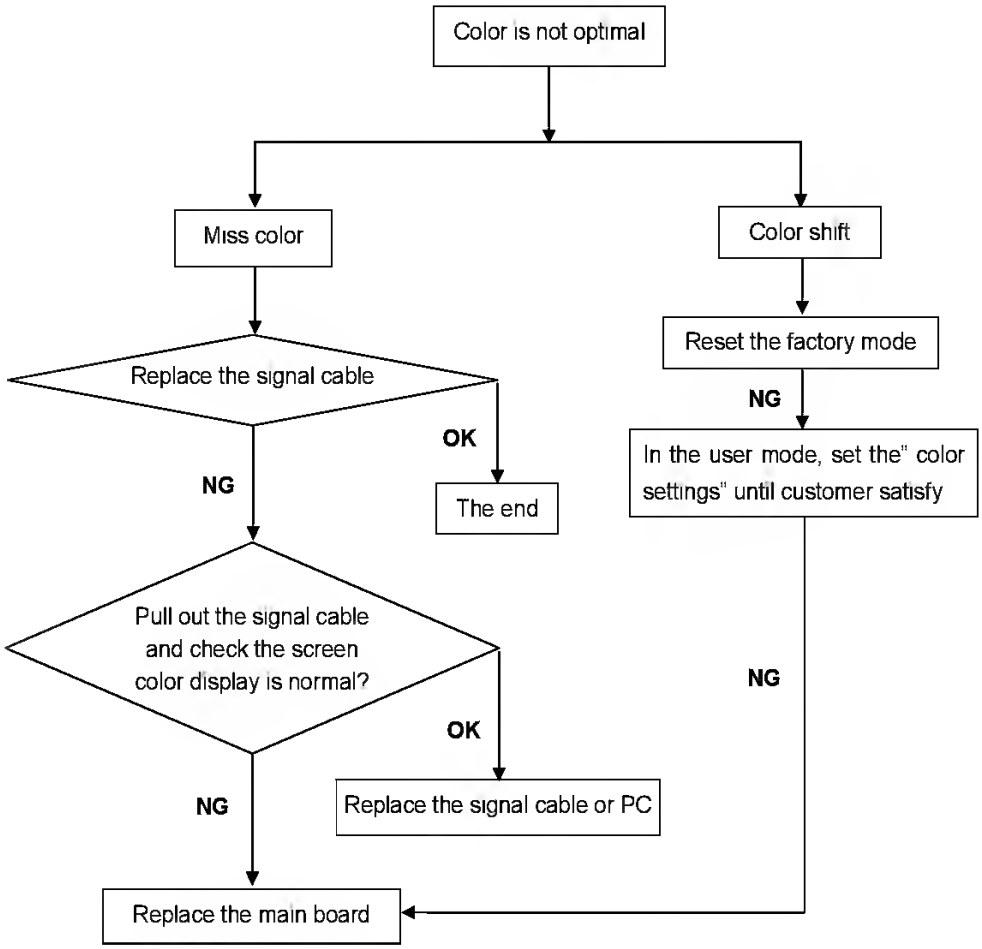
2 No Video (Power LED Blue)



3 DIM


DIM (image overlap, focus or flicker)
Reset in factory mode
OK
The end
NG
Set to the optimal frequency, select the recommended frequency
OK
The end
NG
Readjust the phase and pixel clock in the user mode
OK
The end
NG
Pull out signal cable and check "Self Test Feature Check" is ok?
OK
Check the signal cable and the PC
NG
NG
Replace the main board
OK
The end
NG
Replace the panel
OK

4 Color is not optimal



6. Firmware Upgrade Process

Take B243PHL and V243PHL for example

6.1 Test Environment Preparation:

Hardware and Software Required

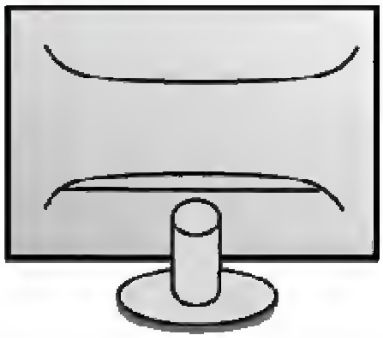
- USB cable
- VGA cable
- ISP Board: 715GT089-B/C
- PC
- Monitor
- USB port driver
- ISP tool
- New F/W

USB cable

VGA cable

ISP Board: 715GT089-B/C

PC



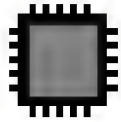
Monitor

FTC100103(MSTAR) usb drive.rar

USB port driver

ISP_Tool.exe

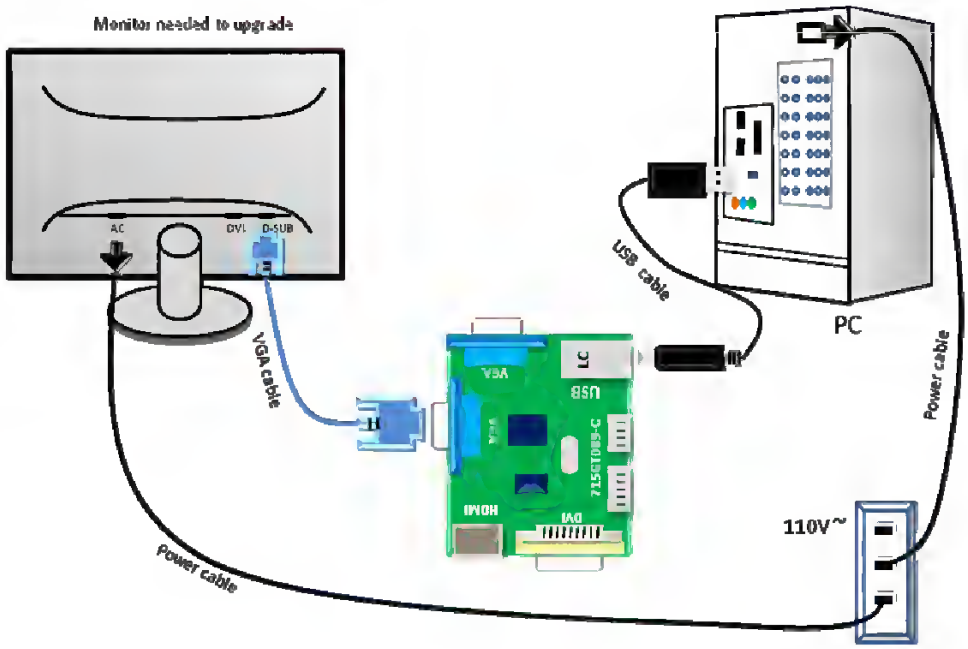
ISP tool



ACER-B243PHL-TSUM...

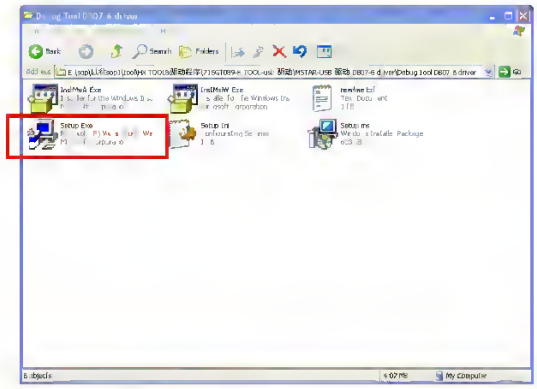
New F/W

6.2 Connection:

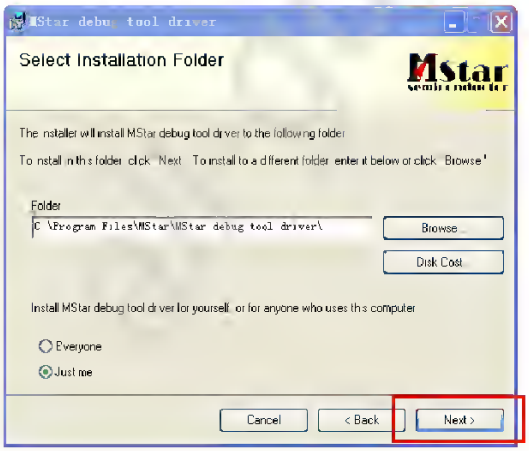


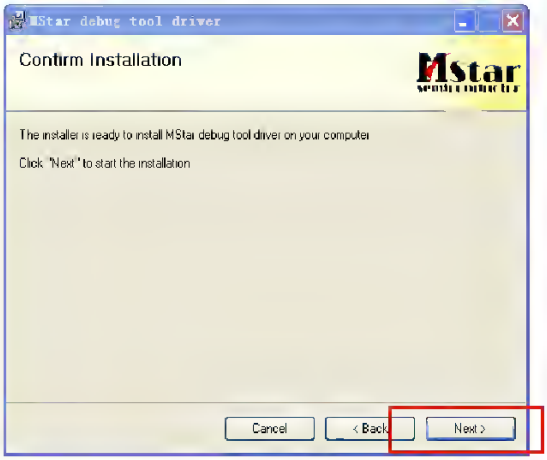
6 3 Install driver

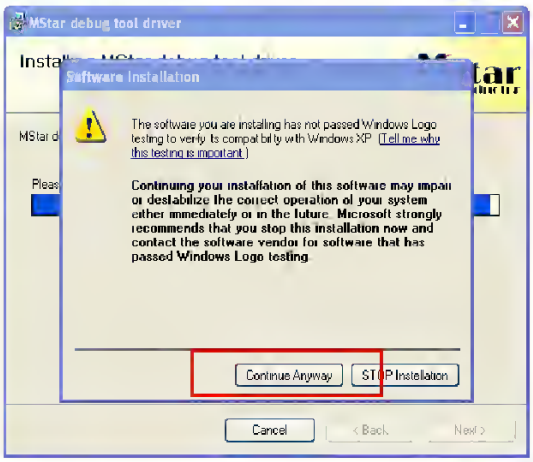
S1 If you use this ISP board first time, First you need to install mstar driver .

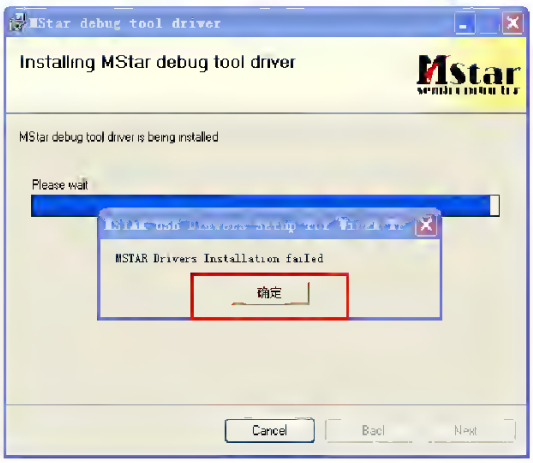


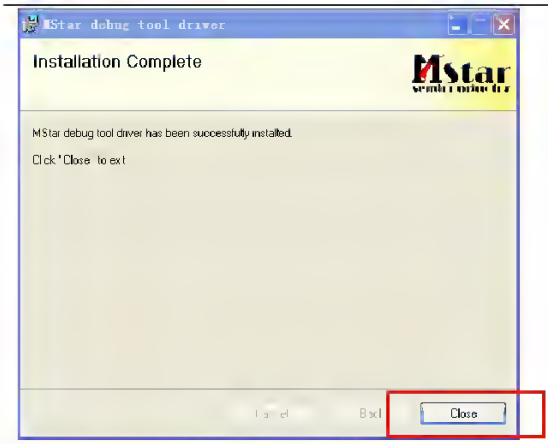
Star debug tool driver
Welcome to the MStar debug tool driver Setup Wizard
Please plug in the USB debug tool before continue
WARNING This computer program is protected by copyright law and international treaties
Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law
Cancel
Next >


Star debug tool driver
Select Installation Folder
The installer will install MStar debug tool driver to the following folder
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
Folder
C:\Program Files\MStar\MStar debug tool driver\
Browse...
Disk Cost...
Install MStar debug tool driver for yourself, or for anyone who uses this computer
Everyone
Just me
Cancel
< Back
Next >


MStar debug tool driver
Confirm Installation
The installer is ready to install MStar debug tool driver on your computer
Click "Next" to start the installation
Cancel
< Back
Next >


MStar debug tool driver
Software Installation
The software you are installing has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the software vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation
Cancel
< Back
Next >

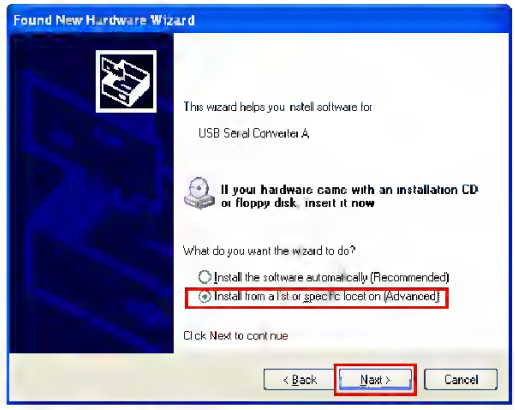

MStar debug tool driver
Installing MStar debug tool driver
MStar debug tool driver is being installed
Please wait
MSTAR Drivers Installation failed
确定
Cancel
Back
Next

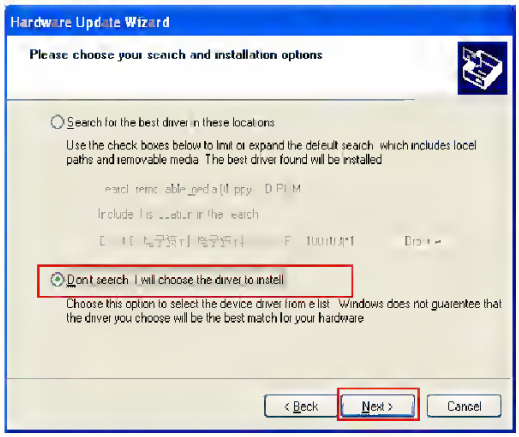


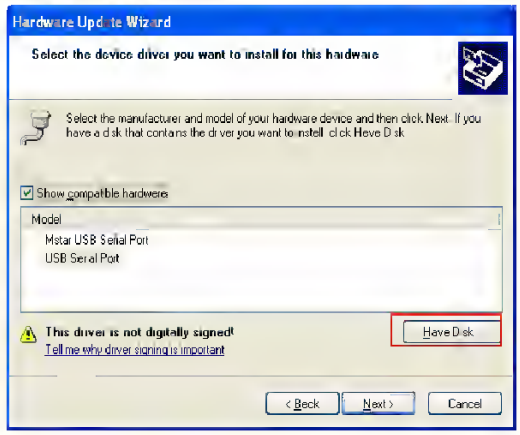
S2 When insert the USB cable to PC USB port, will pop up a Hardware Wizard to help you install the USB driver if you use this ISP board first time. You can install it successfully as the below instruction step by step.

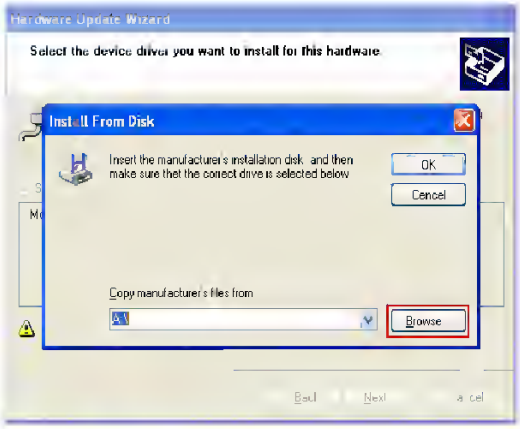
Remark: The USB driver files path: D:\FTC100103(Mstar)\FTCUSB INF

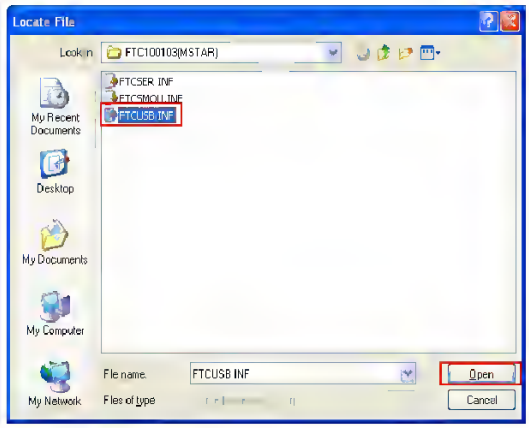
Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy
Can Windows connect to Windows Update to search for software?
Yes, this time only
Yes, now and every time I connect a device
No, not this time
Click Next to continue
Back
Next >
Cancel

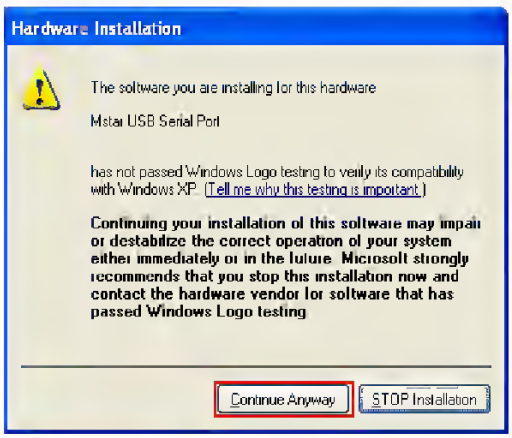

Found New Hardware Wizard
This wizard helps you install software for:
USB Serial Converter A
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel


Hardware Update Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Include this location in the search:
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

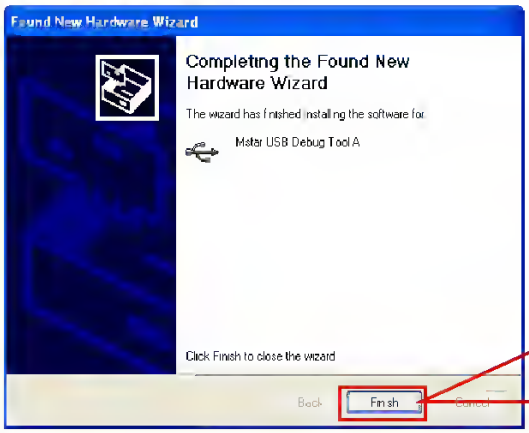

Hardware Update Wizard
Select the device driver you want to install for this hardware.
Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.
Show compatible hardware
Model
Mstar USB Serial Port
USB Serial Port
This driver is not digitally signed!
Tell me why driver signing is important
Have Disk...
< Back
Next >
Cancel


Hardware Update Wizard
Select the device driver you want to install for this hardware.
Install From Disk
Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.
OK
Cancel
Copy manufacturer's files from:
Browse




Hardware Installation
The software you are installing for this hardware:
Mstar USB Serial Port
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

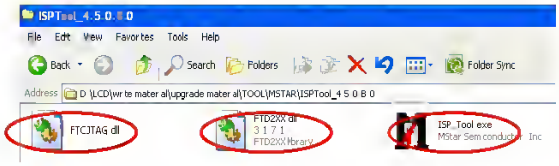
Hardware Update Wizard
Please wait while the wizard installs the software...
Mstar USB Serial Port
Setting a system restore point and backing up old files in case your system needs to be restored in the future.


Found New Hardware Wizard
Completing the Found New Hardware Wizard
The wizard has finished installing the software for:
Mstar USB Debug Tool A
Click Finish to close the wizard.
Back
Finish
Cancel

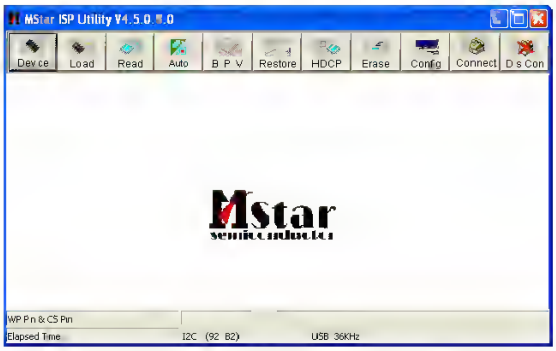
Click "Finish" to complete the USB serial port driver installation

6.4 Install the ISP tool.

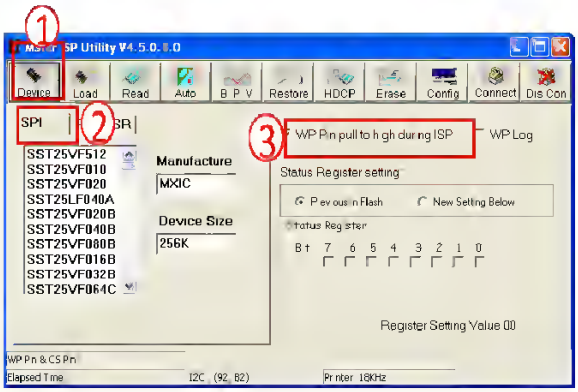
S1 Copy the three files in one folder



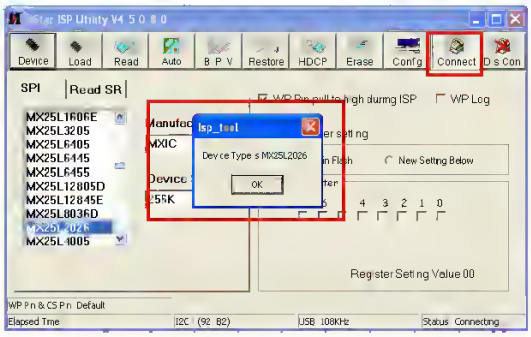
S2 Double-click to run the ISP tool


MStar ISP Utility V4.5.0.0
Device Load Read Auto B P V Restore HDCP Erase Config Connect Dis Con
MStar
Semiconductor Inc.
WP Pin & CS Pin
Elapsed Time
I2C (92, B2)
USB 36KHz

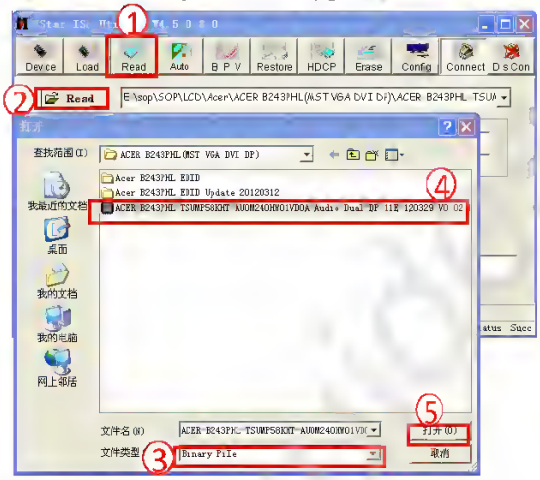
S3 Set the parameters in "Device" window. Tick "WP Pin pull to high during ISP"



S4 Connect to the monitor. Click "Connect". If the tool communicate with monitor successfully, the tool will detect the flash type of monitor

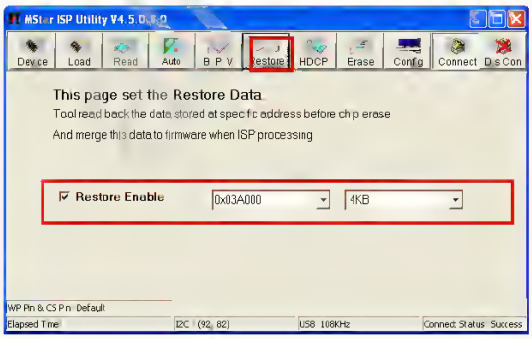


S5 Load the F/W you want to upgrade

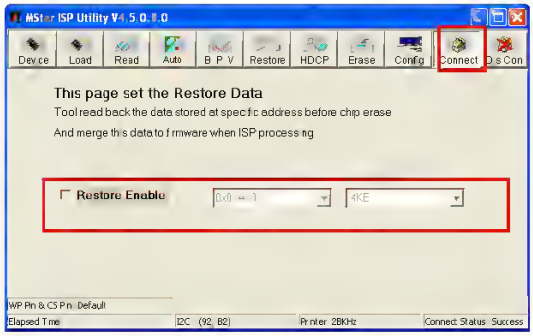


S6 Set the restore address

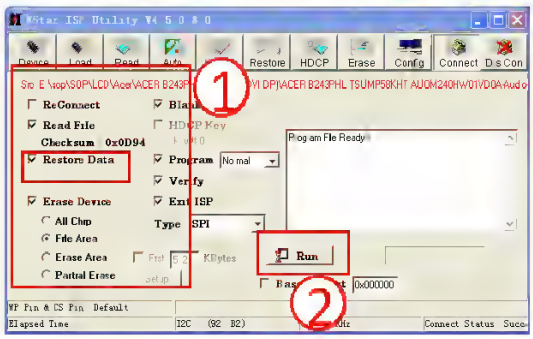
(1)If the monitor has DVI or HDMI port, you need to set restore address for HDCP key to avoid re-program HDCP key. "0x03A000", 4KB for Acer B243PHL



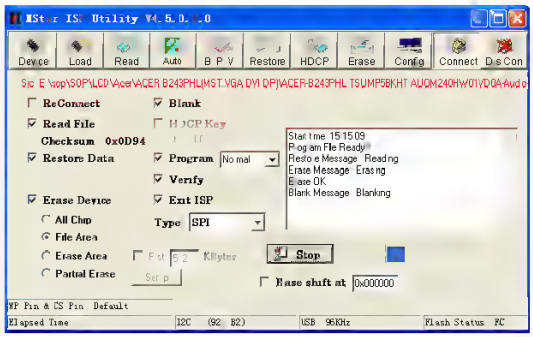
(2)If monitor hasn't DVI or HDMI port, it isn't necessary to tick "Restore Enable".



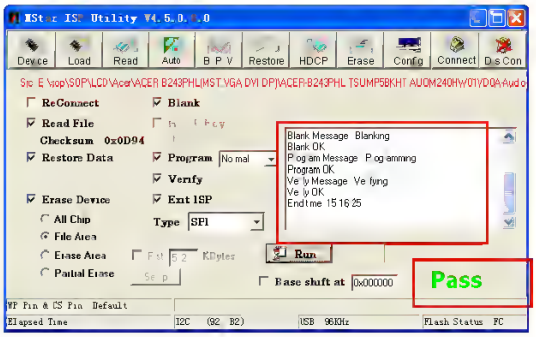
S7 Set parameter in "Auto" window. If you have set "Restore address", please tick "Restore Data".



S8. Processing of upgrade. After clicking "Run", the tool start to program. It is forbided to power off monitor or switch off connection during programming.



S9 Successful upgrade. When upgrade successful, there will be green Pass letter appearing

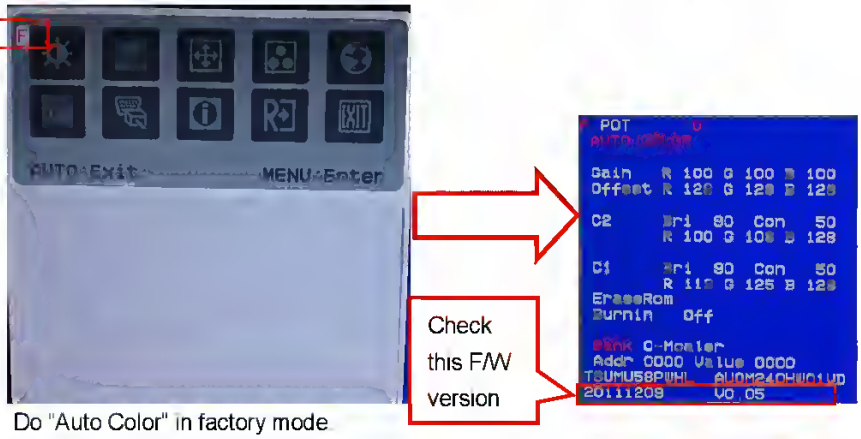


6.5 Check the FW version after upgrade.

S1 The way to open factory menu

(1) Connect VGA source to monitor and turn it on

(2) The way to factory menu: Pressing "e" and DC on, when the screen lights, release the key and press "MENU" again to open the menu with "F" and select "F" to open factory menu



(3) Do "Auto Color" in factory mode

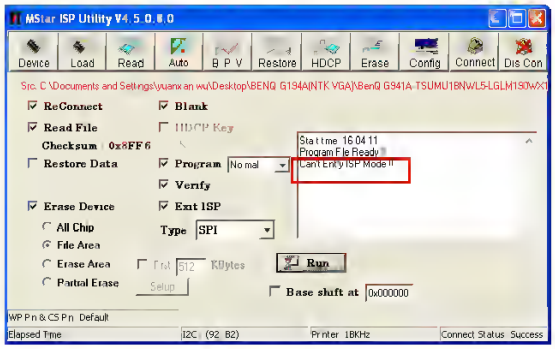
S2 Do factory reset in user menu

(1)Restart the monitor after open factory menu. And then open the user menu

(2)Factory reset will turn off "Burn in" mode which screen color switches among red, green, blue and black

6.6 Troubleshooting.

S1 Can't Entry ISP Mode!!



(1) Check the cables and ISP JIG are connected fluently

(2) Click the "Dis Con" and click "Connect" again

(3) AC off the monitor for a while and retry it

(4) Change other vervion ISP program

(4)Change ISP JIG or cable

(5)Change PC

7. Writing EDID Process

Take B243PHL and V243PHL for example

7.1 Test Environment Preparation:

Hardware and Software Required

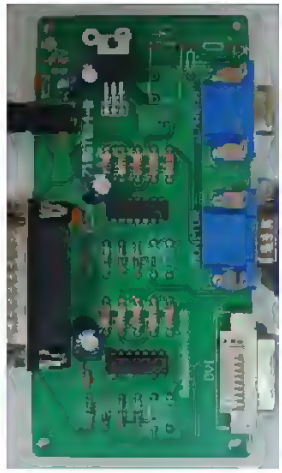
- LPT cable(male to male)
- VGA cable x 2
-12V DC adapter
- ISP Board: 715GT034-B
- PC
- Monitor
- LPT port driver
- ISP tool: VgaSinglePort.exe
- EDID

LPT cable(male to male)

VGA cable

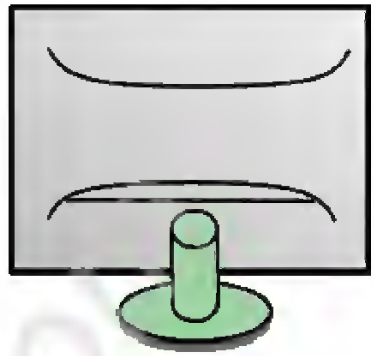
12V DC adapter

ISP Board: 715GT034-B

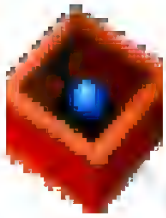


PC

Monitor



LPT port driver



PORT95NT.EXE

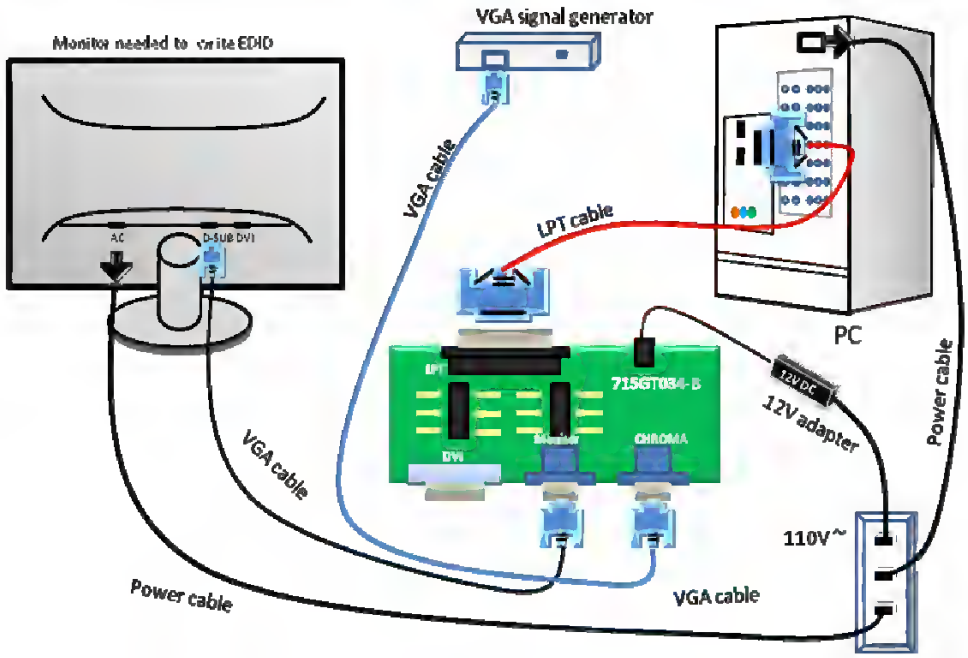
ISP tool VgaSinglePort exe

VgaSinglePort.exe

EDID

Acer B203HV EDID

7.2 Connection



7.3 Install LPT driver

S1. Double click the icon PORT95NT.EXE PackageForTheWeb Stub InstallShield Software Corpora to install the driver

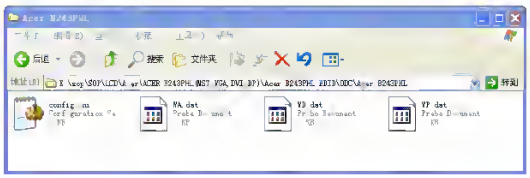
S2. Restart PC after installation

S3. Change the EDID files name as below rule

Anolog EDID ⟶ WA.dat Digital EDID ⟶ WD.dat

Displayport EDID ⟶ WP.dat

S4. Copy these four files to one folder named as ACER B243PHL and ACER V243PHL which must contains "config.ini" file.

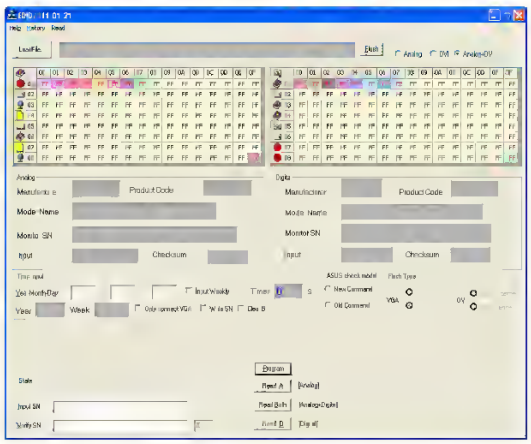


S5 Copy ACER B243PHL and ACER V243PHL to DDC folder and put DDC and ISP tool together

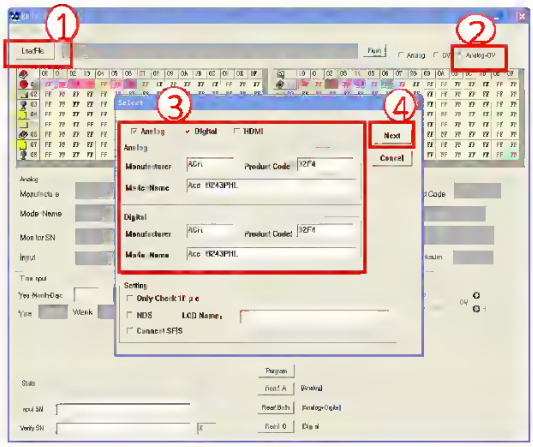
S6 Run the ISP tool

S7 Double-click the icon

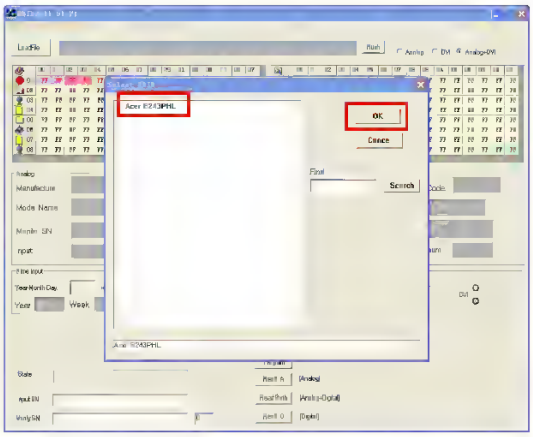
to open the tool



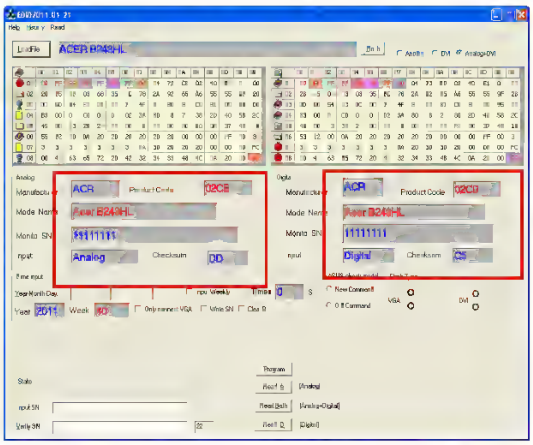
S8 Tick the "Analog+DVI" and click "Loadfile" to set the parameters



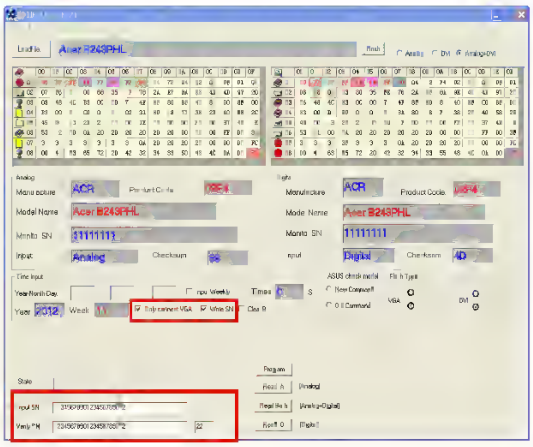
S9. Select the EDID folder. Select ACER B243PHL and ACER V243PHL.



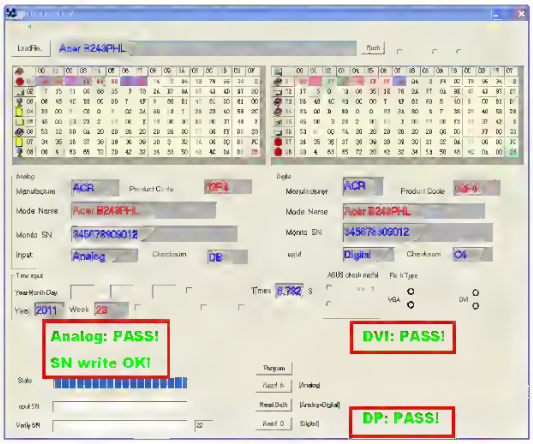
S10. LOad EDID successful. In the EDID tool, you can know the EDID information.



S11. Tick the "Only connect VGA" and "Write SN", and type in the 22 digit S/N.



S12 Start writing Click "Program" to start writing When the green "PASS" appear, the process is finished



S13 Check the S/N in monitor user menu

Press "MENU" and select "Information"—"SN", you can check the SN

7 4 Troubleshooting

S1 Can't write error

S2 Try below few ways to cure can't write errors!

(1) AC on the monitor and turn on it (Restart the monitor)

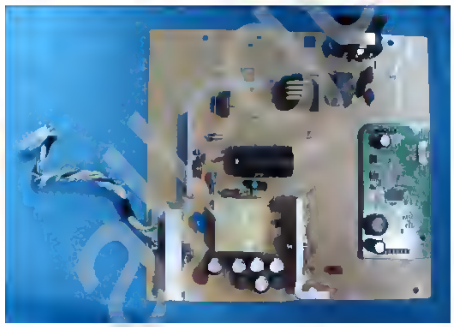
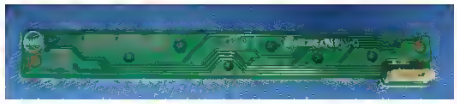
(2)Take apart the monitor and connect the 7pin of EEPROM to GND to diable write protection then write EDID one by one

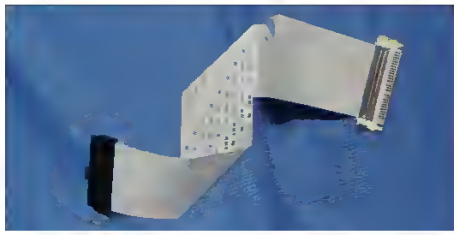
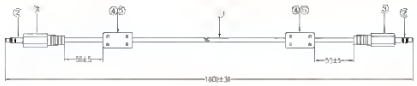
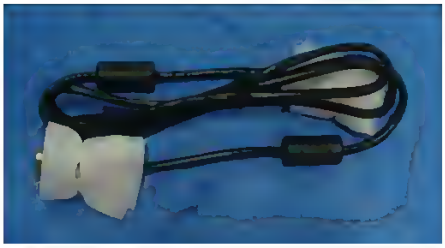
(3)Set the Burn in on last to try again

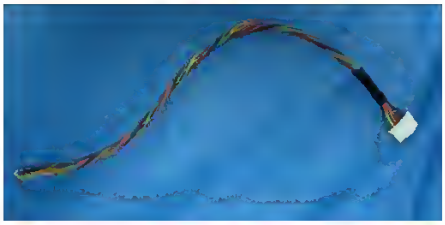
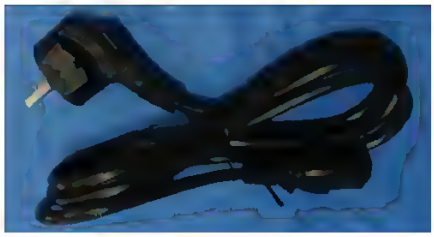
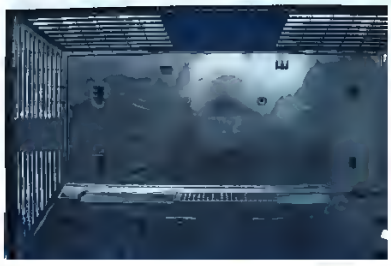
8. FRU (Field Replaceable Unit) List

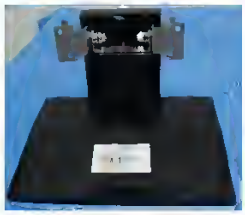
This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of Acer B223PWL and V223PWL. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization). Please note that WHEN ORDERING FRU PARTS, you should check the most up-to-date information available on your regional web or channel. For whatever reasons a part number change is made, it will not be noted on the printed Service Guide. For ACER AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code from those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

NOTE: To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.

Picture	Description	TPV Part No.	Acer Part No.
	Main board	756GQCCB0AB0020000	55.LW8M2.001
	Power board	ADPCC1403YDF(for B223PWL)	55.LW8M2.002
		ADPCC1403YDG(for V223PWL)	55.LWBM2.001
	Key board	KEPC8QK4	55.LBZ0B.005

	panel	750GBM220ZGK12N000	KL.2200D.001
	FFC-CABLE-30P-220mm-P1.0	089G179W30N-27	50.LG80B.001
	AUDIO CABLE 1800MM	089G 17356X553	50.L730B.006
	SIGNAL CABLE	089G 728GAA DB	50.LAN0B.002
	SIGNAL CABLE DVI GREATLAND	089G1748GAA AC	50.LAN0B.003

	HARNESS 6P(2008)-6P(1253) 360	395G801406WJ67	50 LW8M2 001
	HARNESS 6P(2008)-6P(CI1406)-200mm	095G8022-6XE06	50 LTU0B 001
	POWER CORD TYPE D 1800MM BLACK (EUROPE)	089G404A18N YH	50 LG80B 002
	FRONT BEZEL ASSY	705GQCCS034085 (for B223PWL)	60 LW8M2 002
		705GQCCS034086 (for V223PWL)	60 LWBM2 002
	REAR_COVER	Q34G7417AEMAZB0130 (for B223PWL)	60 LW8M2 001
		Q34G7417AEMAYB0100 (for V223PWL)	60 LWBM2 001

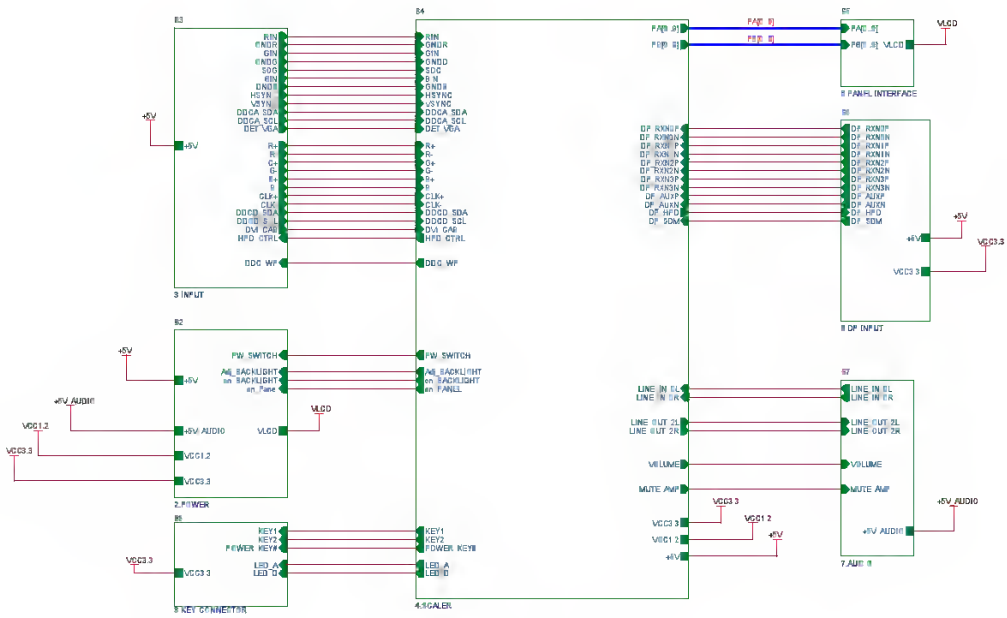
	BASE_ASS'Y	Q37G0085018 B1(for B223PWL)	60 LRQM2 003
		705GQCCS034068(for V223PWL)	60 LRRM2 004
	MAINFRAME	Q15G1166104	33 LW8M2 001
	Cover Hinge	A33G0381AEM 1L0100	42 LBT0B 001
		A33G0382AEM 1L0100	42 LC20B 001
	SPK-8OHM-2W-40X20X18-350-320MM-SUNLINK	078G-518501-Y	23 LG10B 001

9. Schematics and Layouts

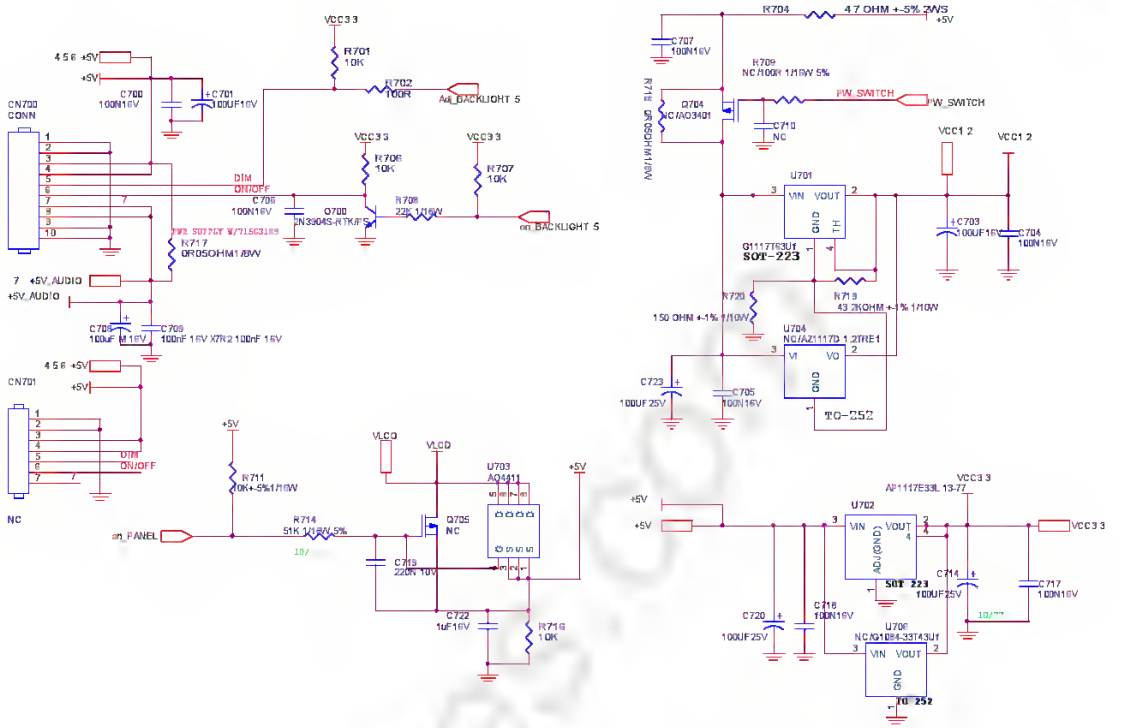
9.1 Schematics

Main Board

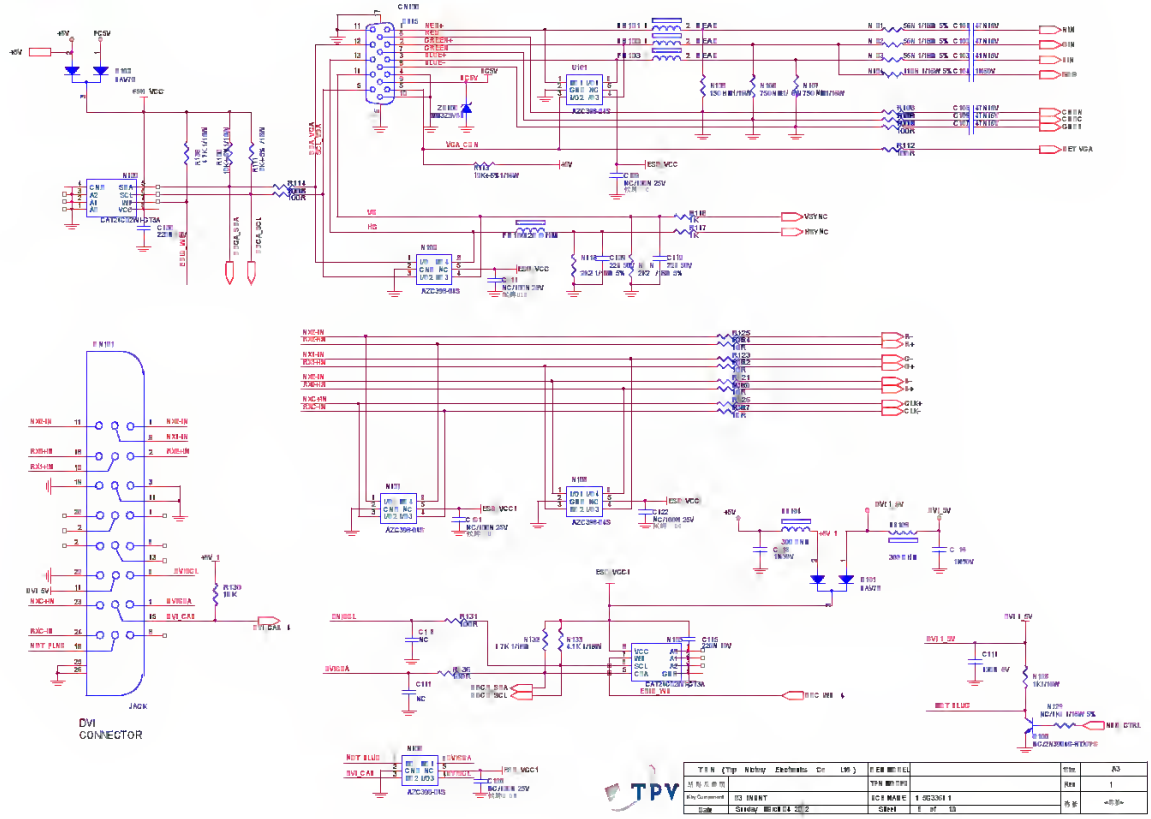
715G3361

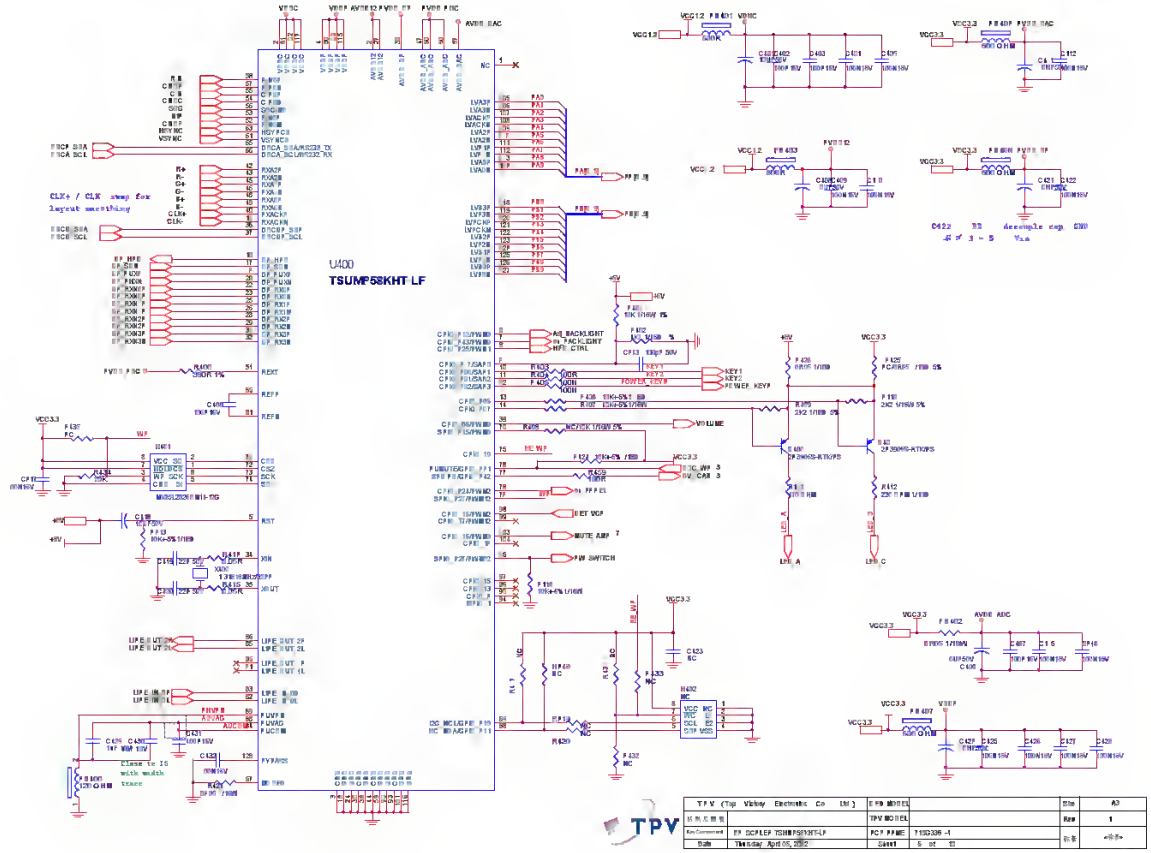


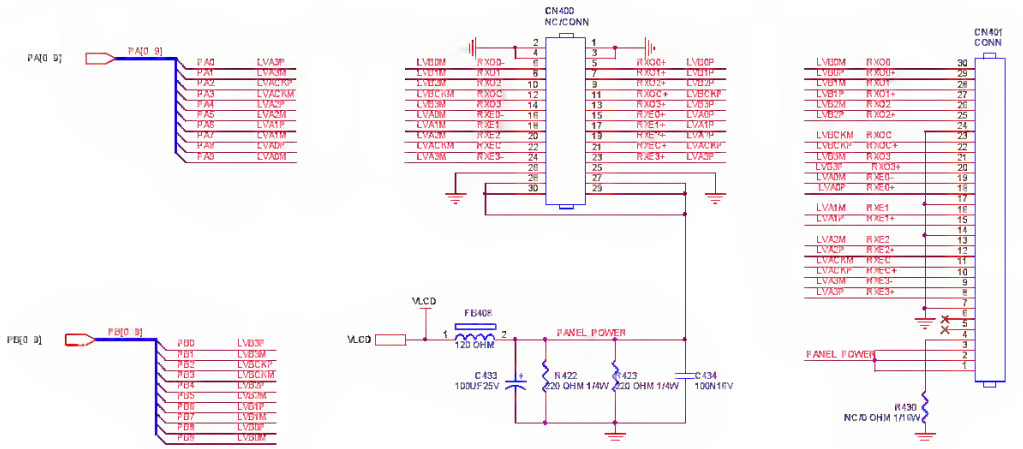
TPV (Top Victory Electronics Co Ltd.)		OEM MODEL		Size	B
		TPV MODEL		Rev	1
Key Component	B1 COVER & REVISE HISTORY & TOP	PCB NAME	715G3361 1		<Rev>
Date	Tuesday, August 30, 2011	Sheet	3 of 11		



TPV (Top Victory Electronics Co Ltd)		OEM MODEL		Size	A4
		TPV MODEL		Rev	1
Key Component	D2 POWER	PCB NAME	715G3361 1		<Rev>
Date	Sunday March 04 2012	Sheet	4 of 10		

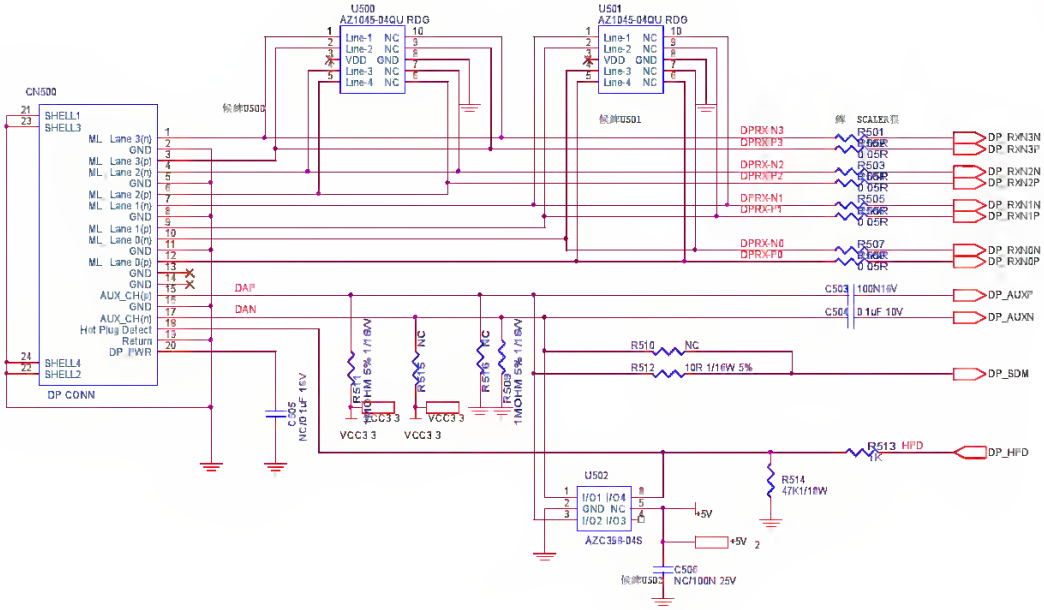

DVI
CONNECTOR


U400
TSUMP58KHT LF
CLK+ / CLK swap for layout smoothing
Close to IC with width trace
TPV
TPV (Top Vision Electronics Co Ltd)
Tuesday, April 05, 2022

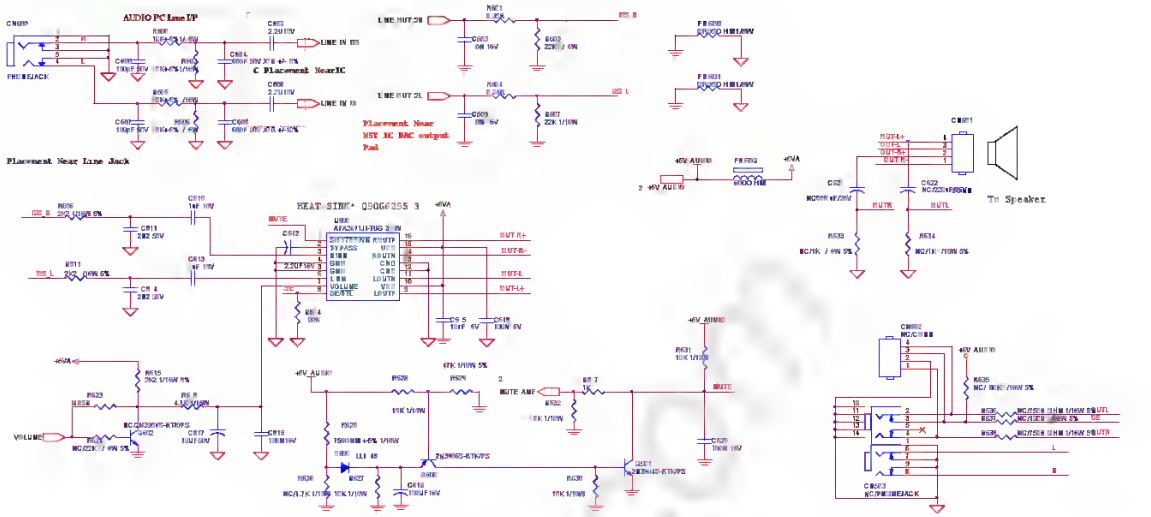


PANEL: CMO--M216H1-L01

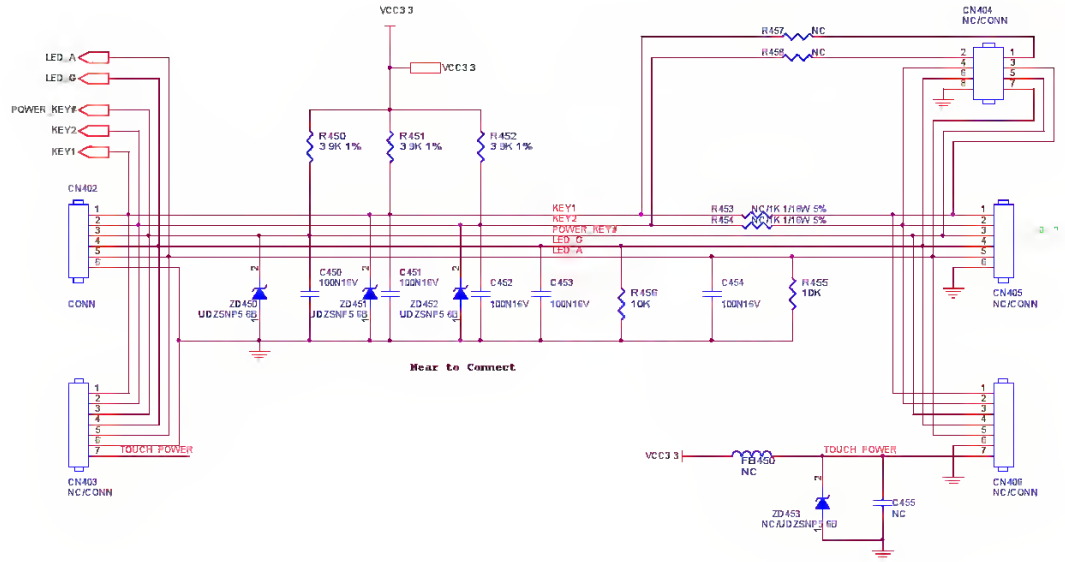
TPV (Top Victory Electronics Co Ltd.)		OEM MODEL		Size	A4
结构尺寸图		TPV MODEL		Rev	1
Key Component	05 PANEL INTERFACE	PCB NAME	715G3381-1	标签	<标签>
Date	Tuesday August 30 2011	Sheet	7 of 10		



TPV (Top Victory Electronics Co Ltd.)		OEM MODEL		Size	A4
质量瓜德隆		TPV MODEL		Rev	1
Key Component	DP DP INPUT	PCB NAME	715G3661-1	备注	<备注>
Date	Sunday, March 04, 2012	Sheet	8 of 10		



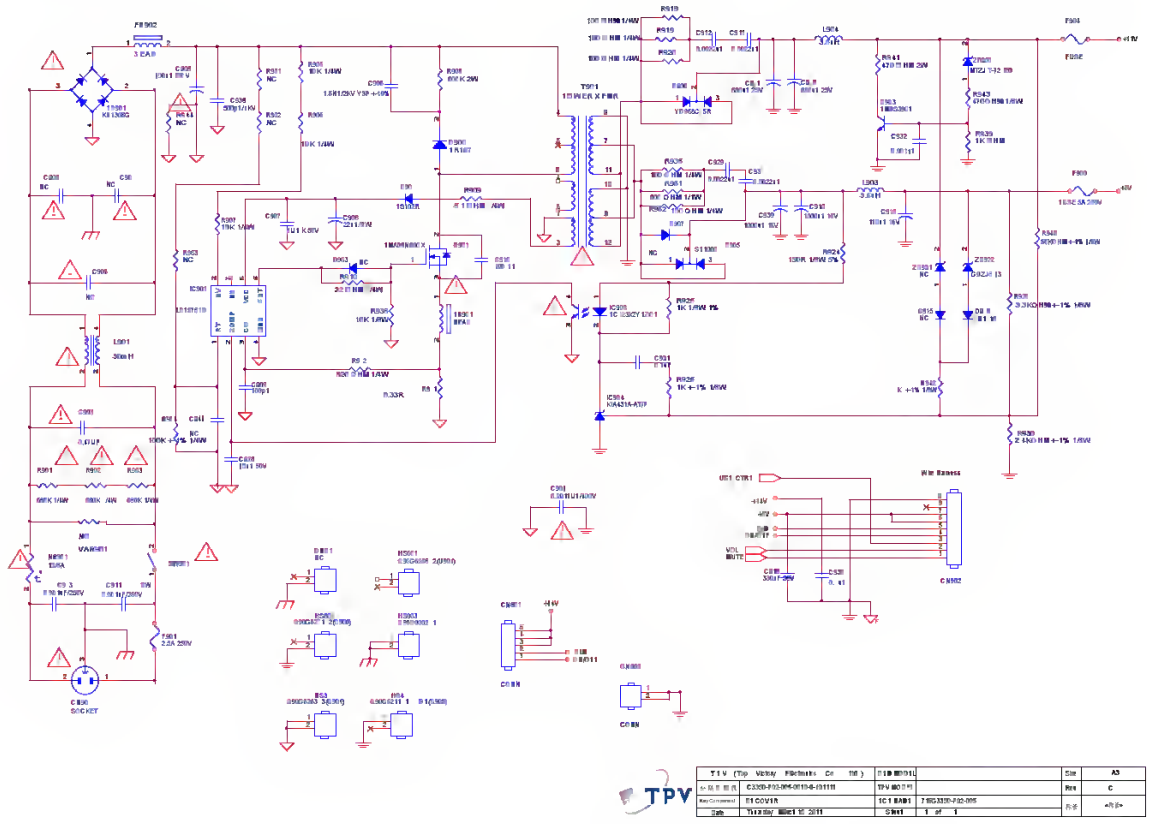
TPV (Top Victory Electronics Co Ltd)		TPV MODEL		Size	A3
		TPV MODEL		Rev	
Key Component	07_AUDIO_AP4306AMTR-E1	PCB NAME	715G3361-1		
Date	Friday, March 01, 2013	Sheet	9 of 10	版本	+R1+

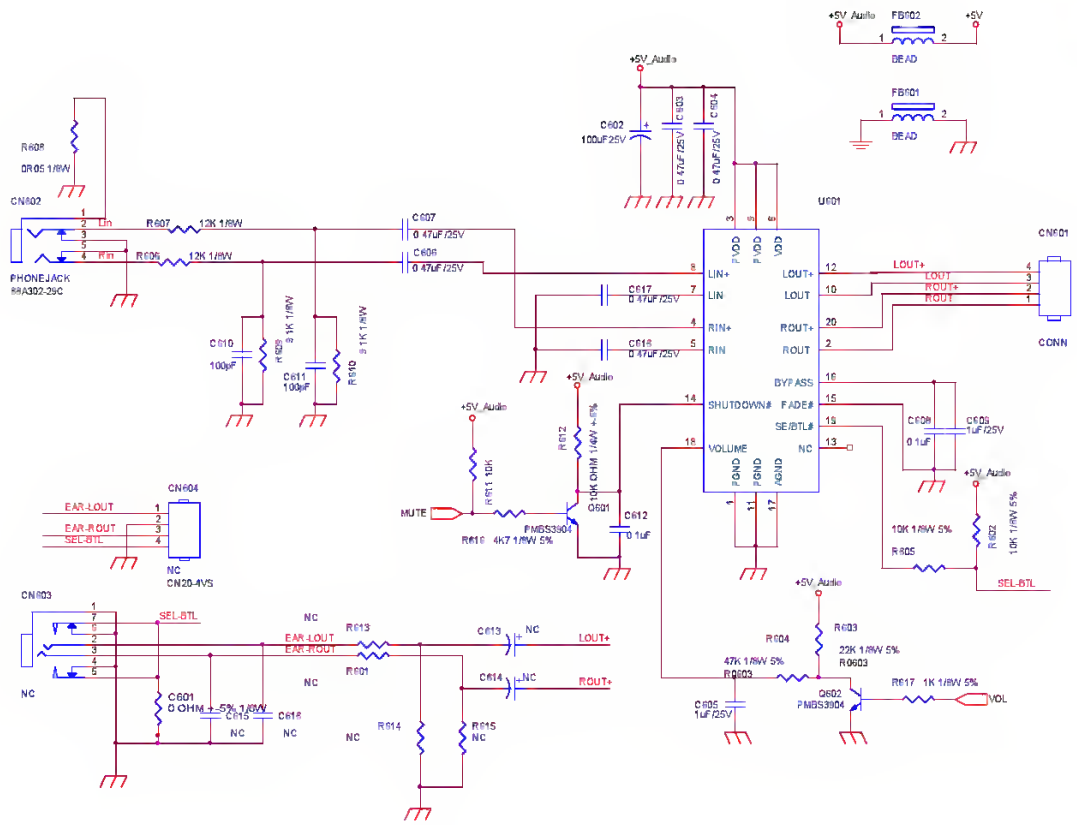


TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	A4
版权及机密		TPV MODEL		Rev	1
Key Component	08 KEY CONNECTOR	PCB NAME	715G3361-1	备注	<备注>
Date	Tuesday, August 30, 2011	Sheet	10 of 10		

Power Board

715G3350P02005001S

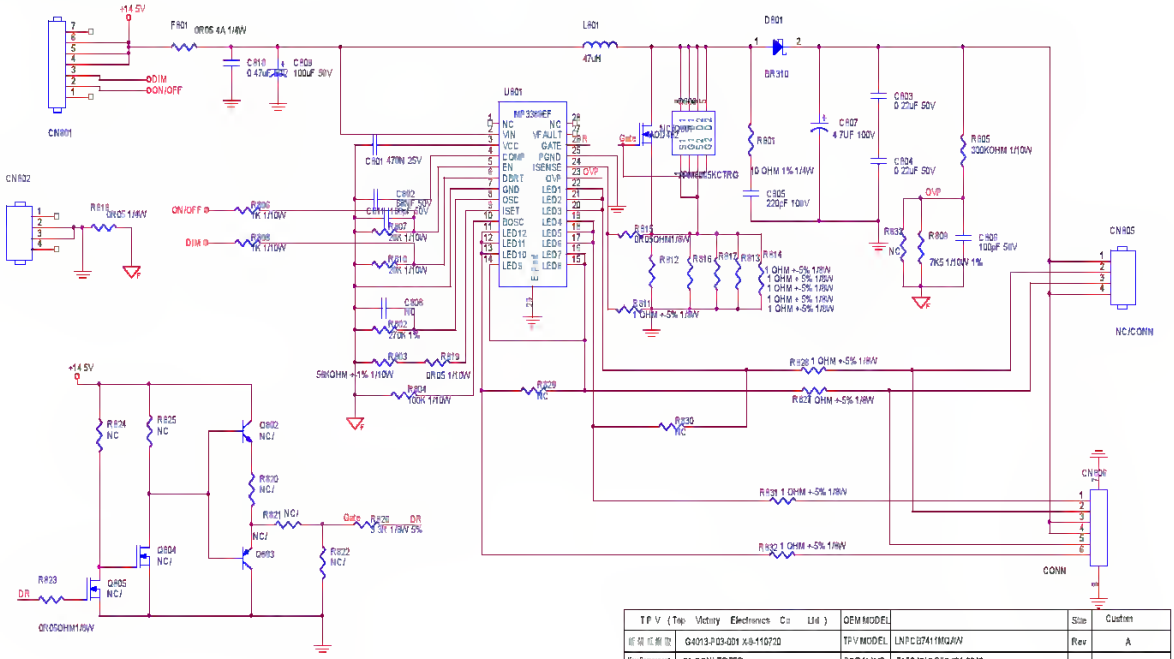




TPV (Top Victory Electronics Co Ltd.)		OEM MODEL		Size	Custom
原图成品型	G3350-P02-005-0010-B101111	TPV MODEL		Rev	C
Key Component	01 COVER	PCB NAME	715G3350-P02-005	备注	<备注>
Date	Wednesday, March 02, 2011	Sheet	1 of 4		

Converter Board

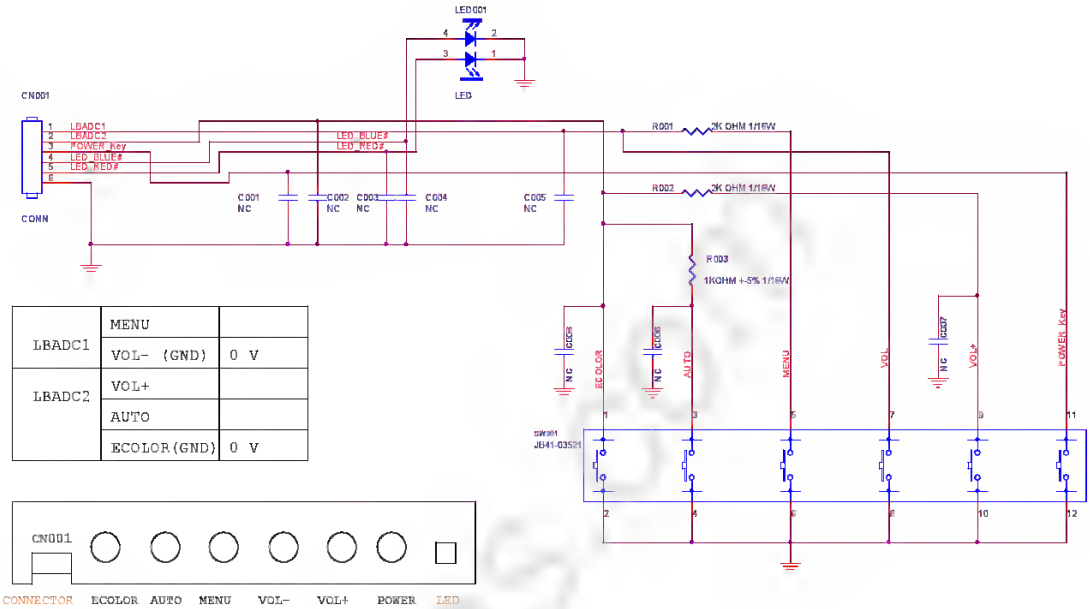
715G4013P03001004S



TPV (Top Victory Electronics Co. Ltd.)		QEM MODEL		Size	Custom
版权所有	G4013-P03-001 X-9-110720	TPV MODEL	LNPCB7411MQAW	Rev	A
Key Component	01 CONVERTER	PCB NAME	715G4013-P03-001-0040	张量	QDM MODEL
Date	Tuesday, July 19, 2011	Sheet	1 of 1		

Key Board

715G2944 3



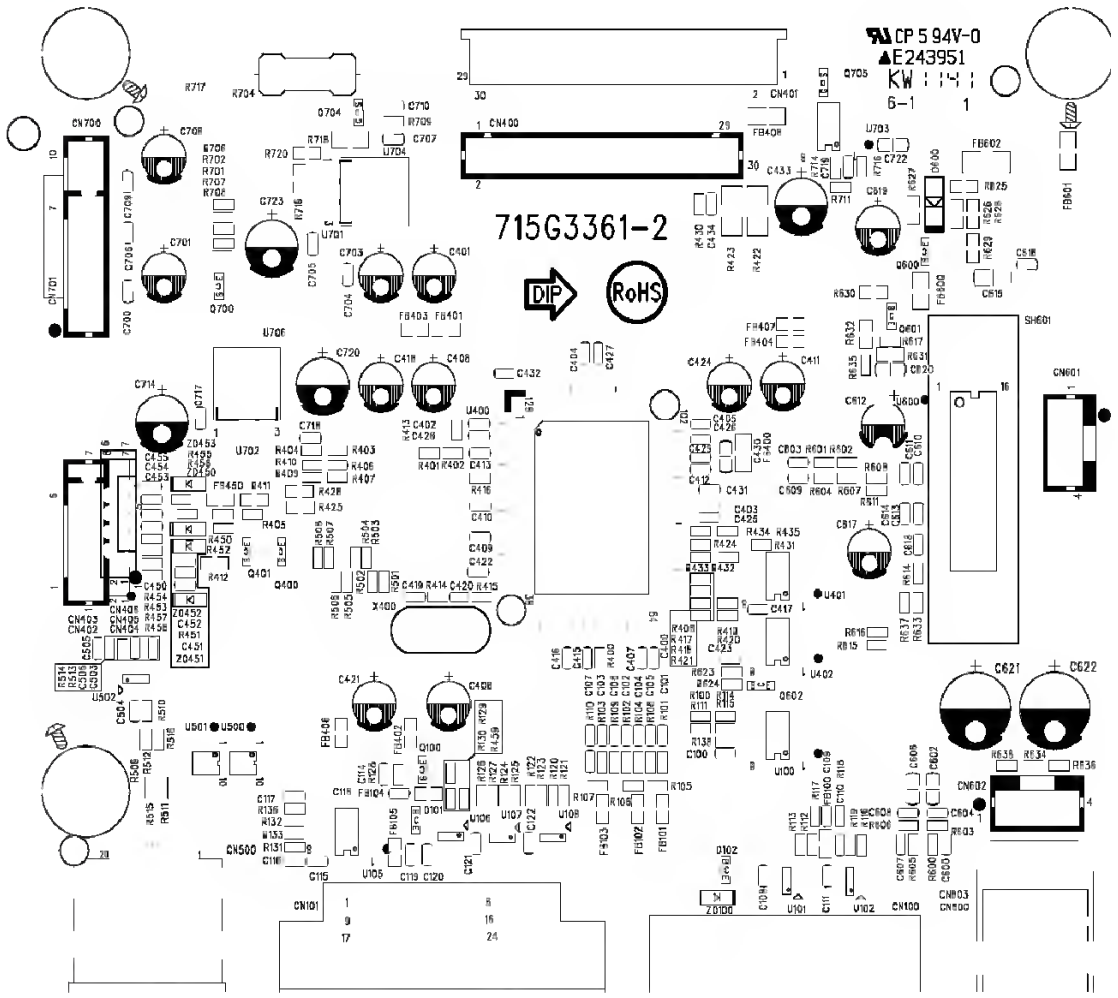
LBADC1	MENU	
	VOL- (GND)	0 V
LBADC2	VOL+	
	AUTO	
	ECOLOR(GND)	0 V

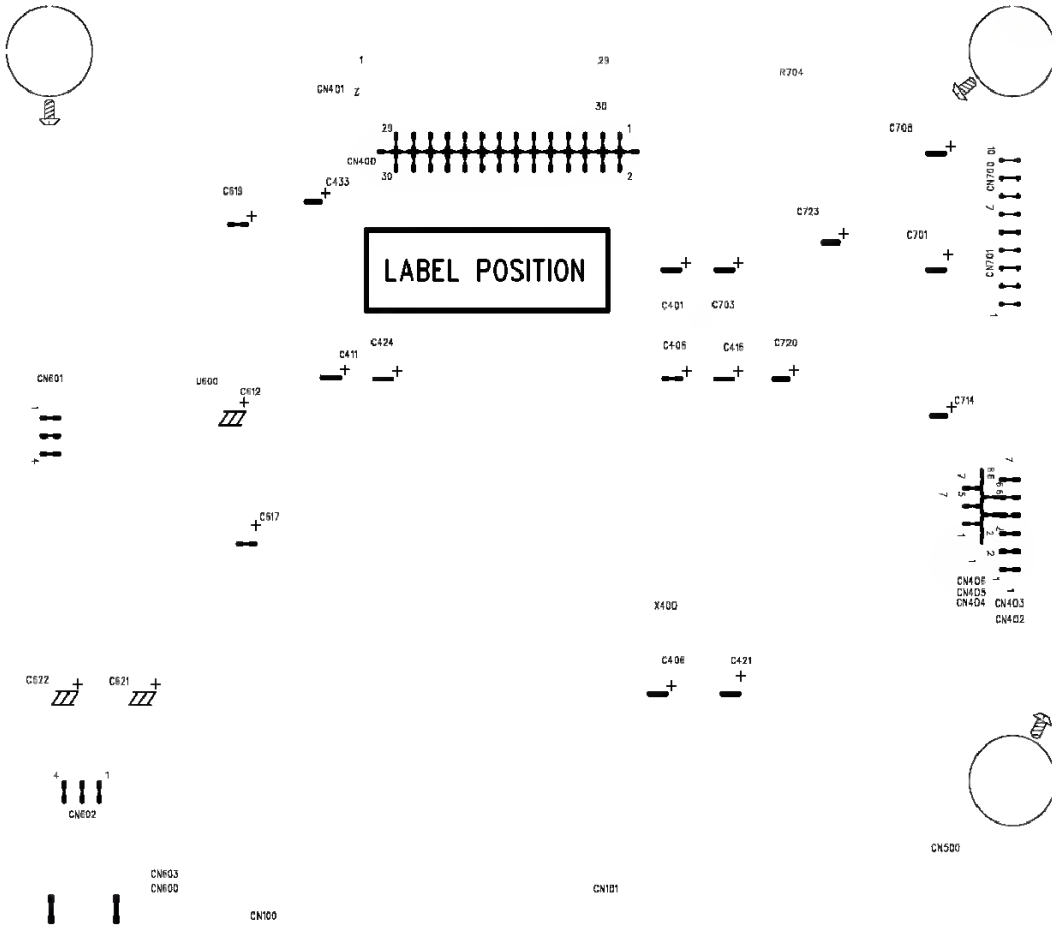
TPV (Top Victory Electronics Co Ltd)		OEM MODEL	ecer B and V key pad	Size	A4
标准版本编号	G2944-A-X-X-1-071122	TPV MODEL	ecer	Rev	D
KeyComponent	02 KEY	PCB NAME	715G2944-A	标签	<签签>
Date	Thursday, November 22, 2007	Sheet	2 of 2		

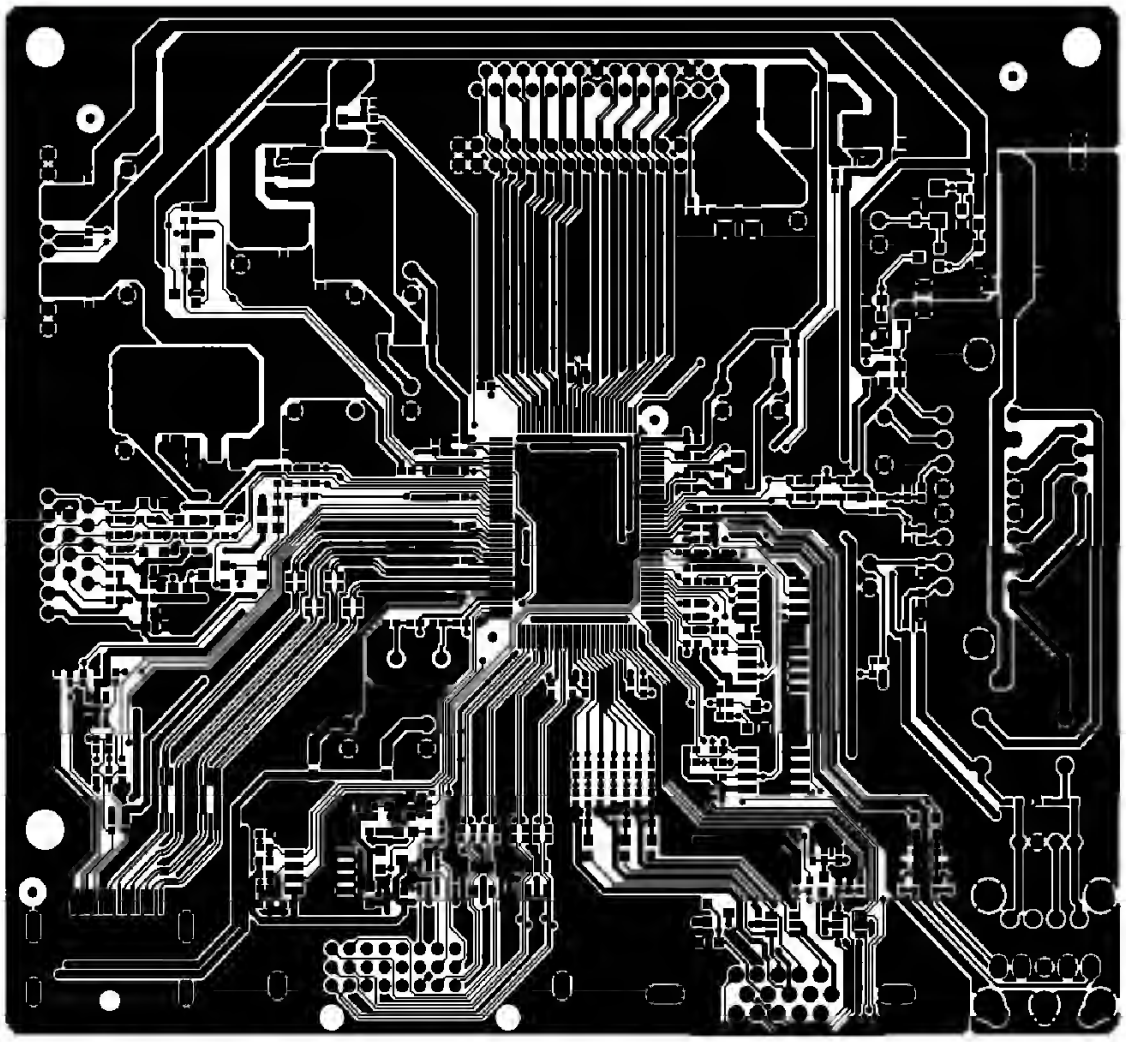
9.2 Layout

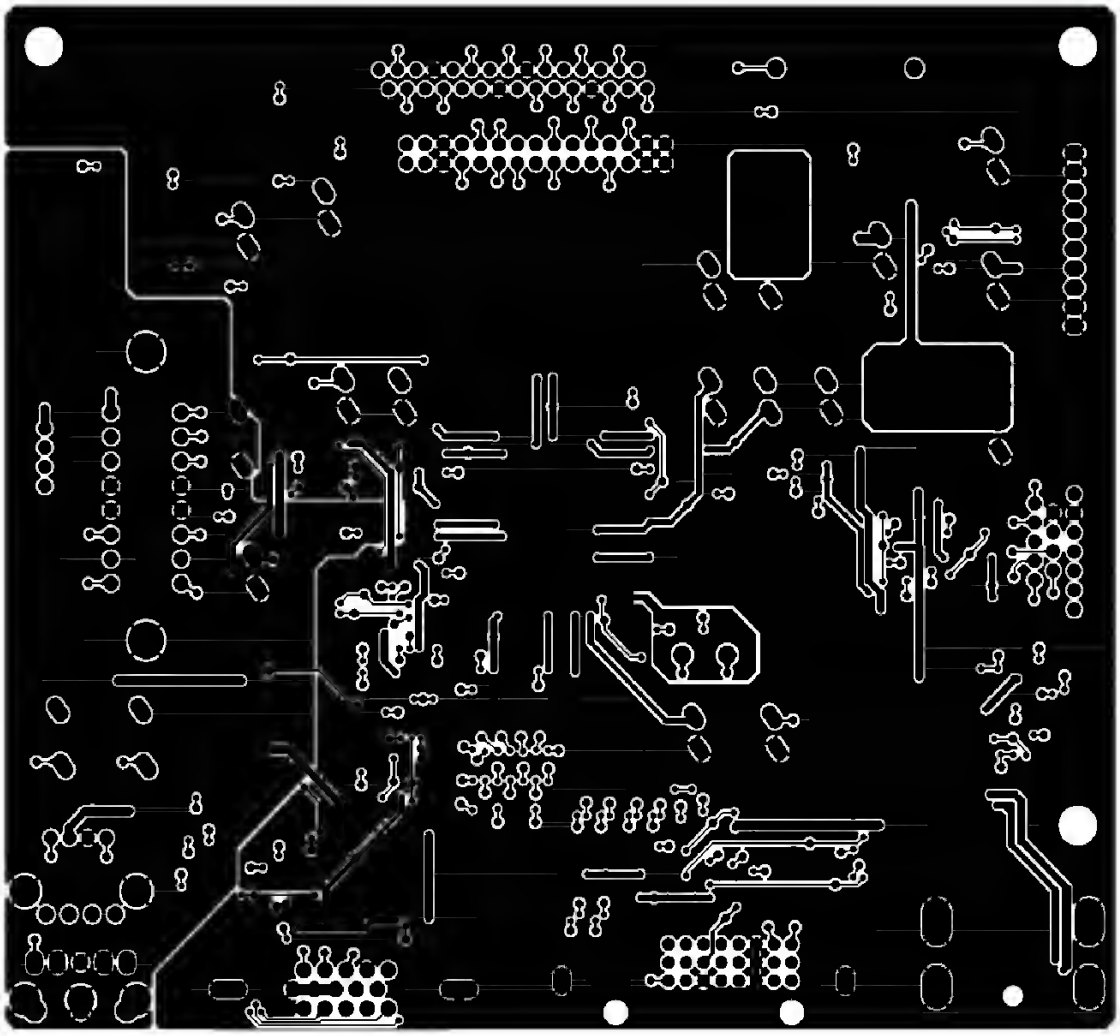
Main Board

715G3361 2




LABEL POSITION
CN401
CN400
C619
C433
C424
C411
C612
C617
C622
C621
CN601
CN602
CN603
CN600
CN100
U600
C401
C703
C405
C416
C720
C714
C708
C723
C701
CN700
CN701
R704
X400
C406
C421
CN101
CN500
CN405
CN404
CN403
CN402





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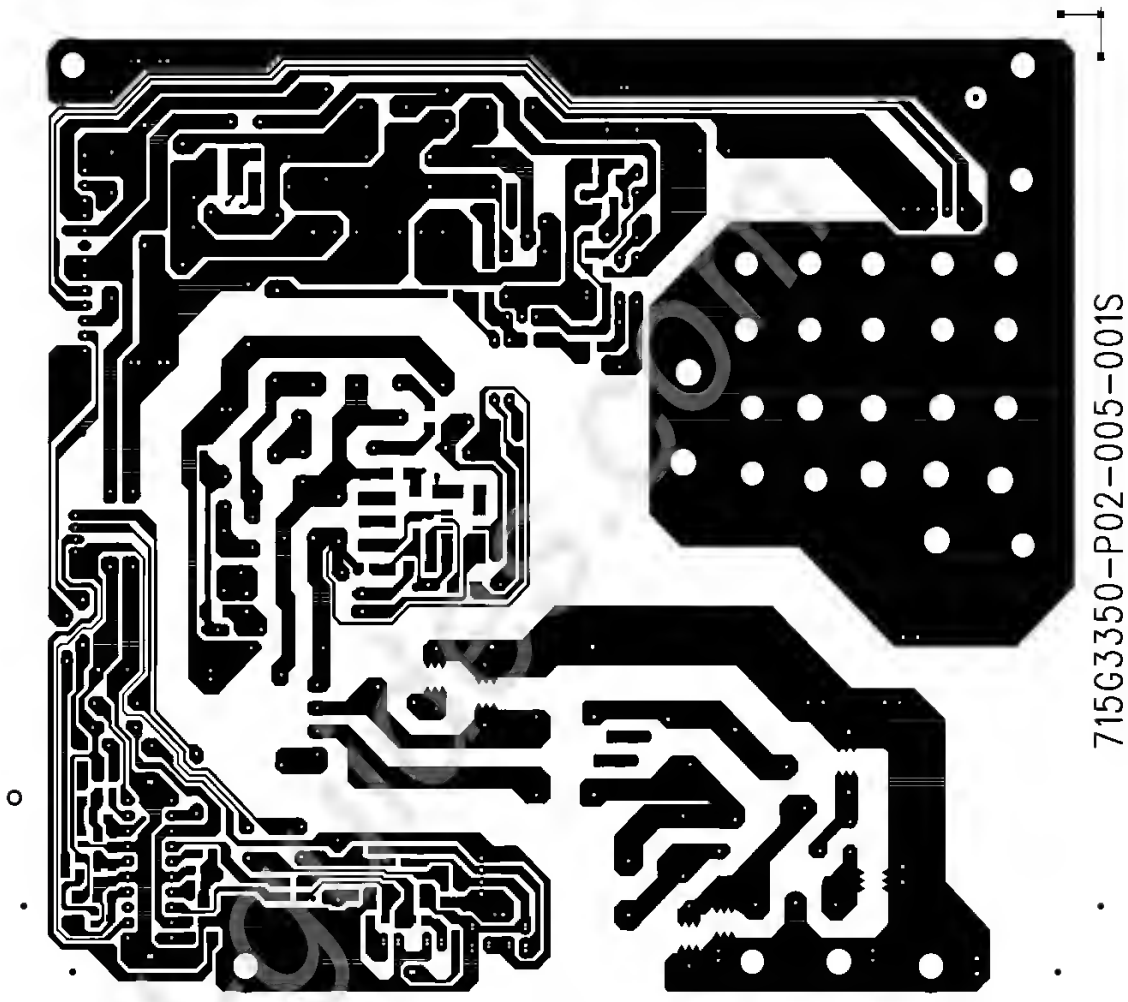

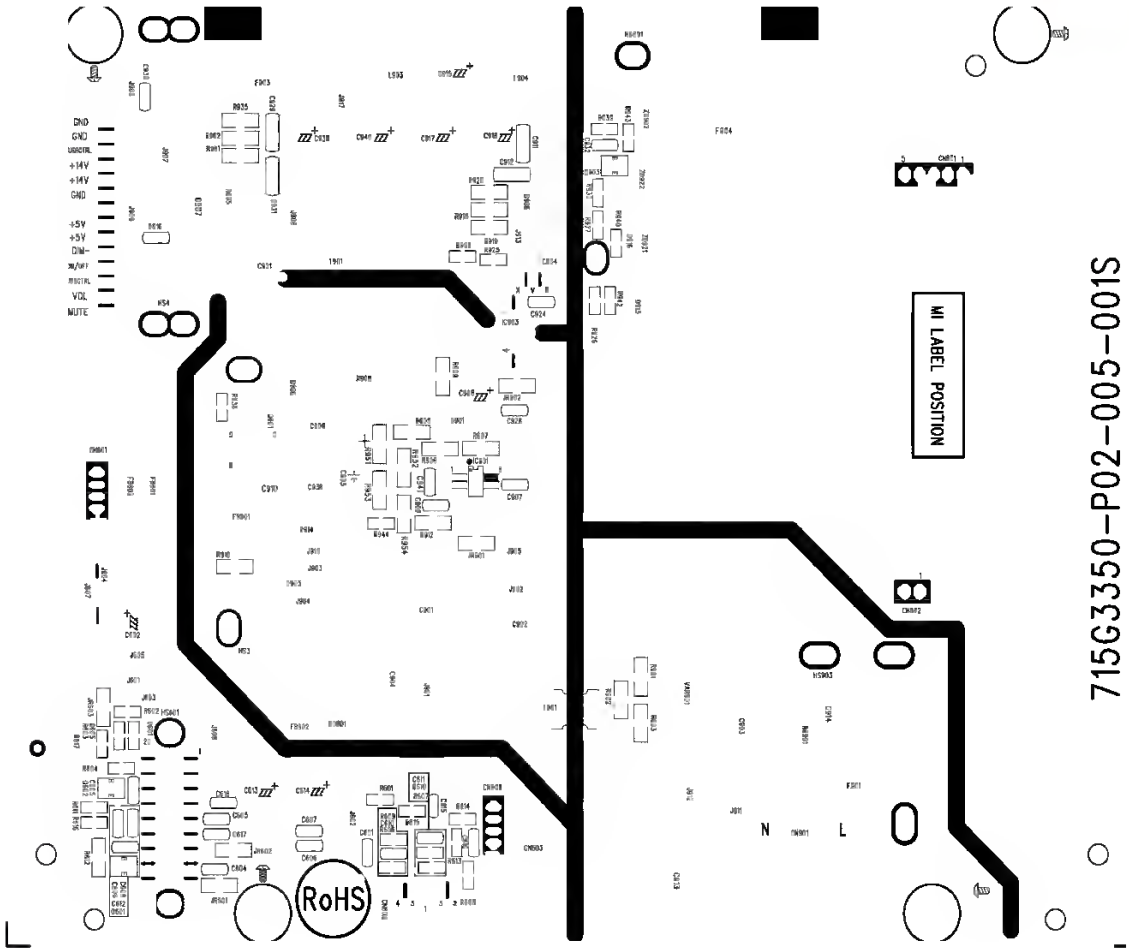
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RoHS

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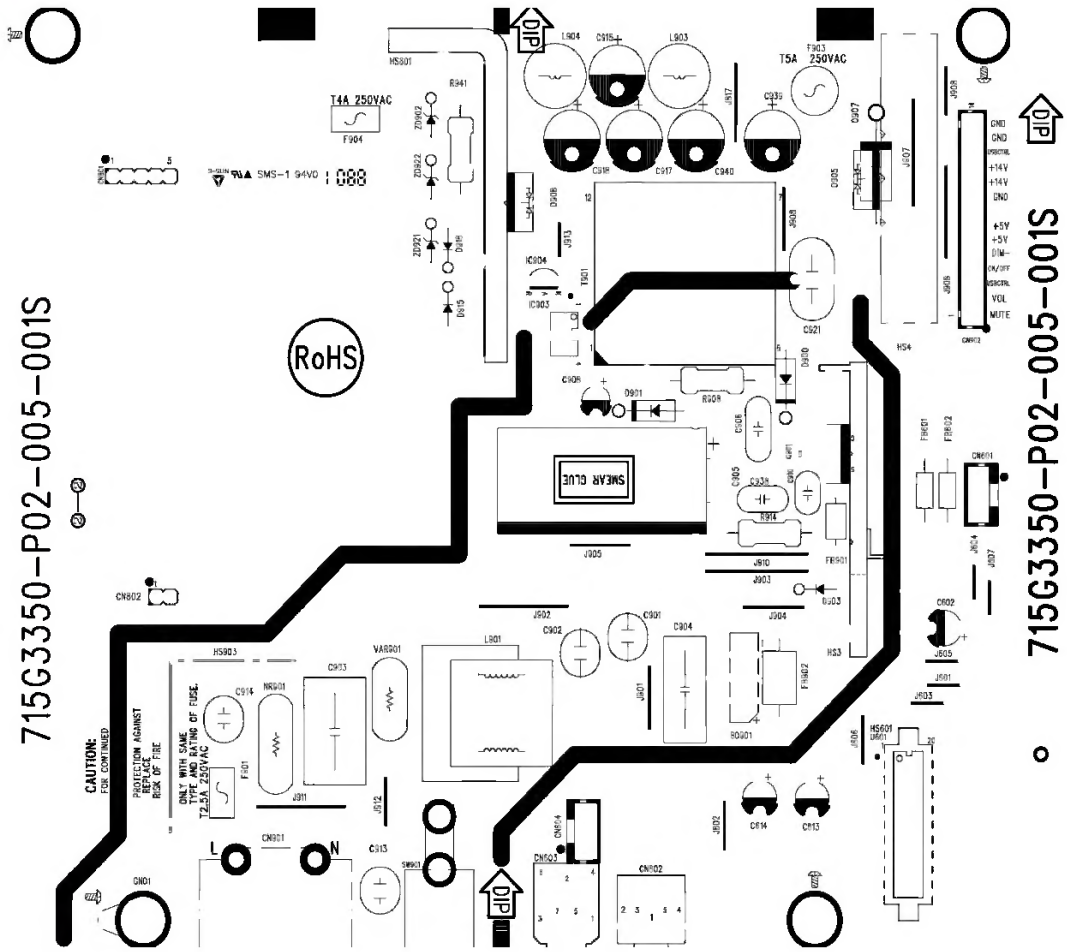

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Converter Board

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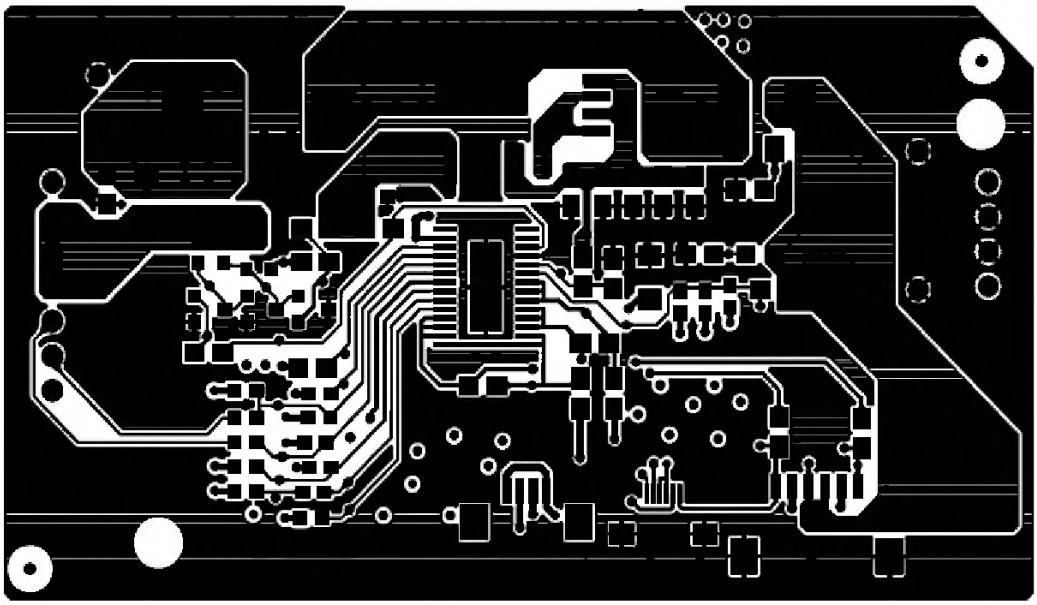

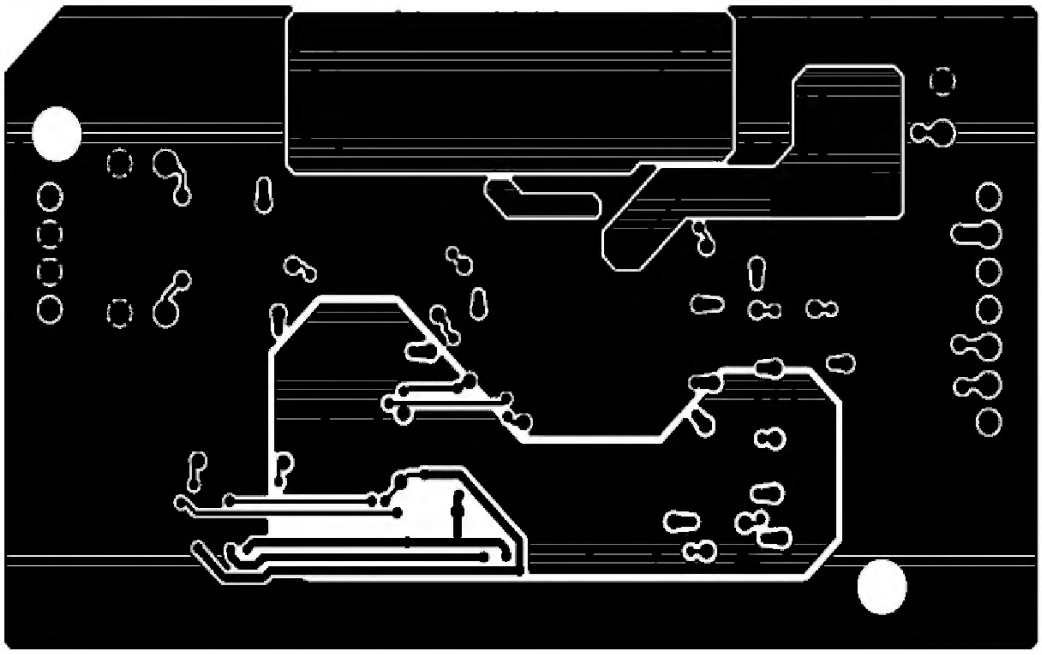

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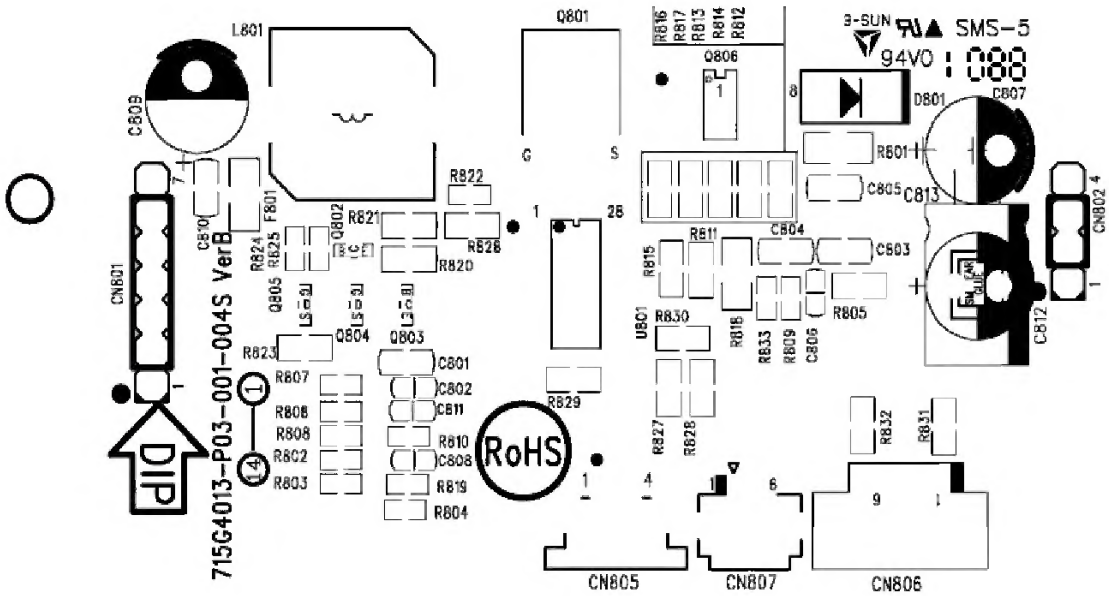

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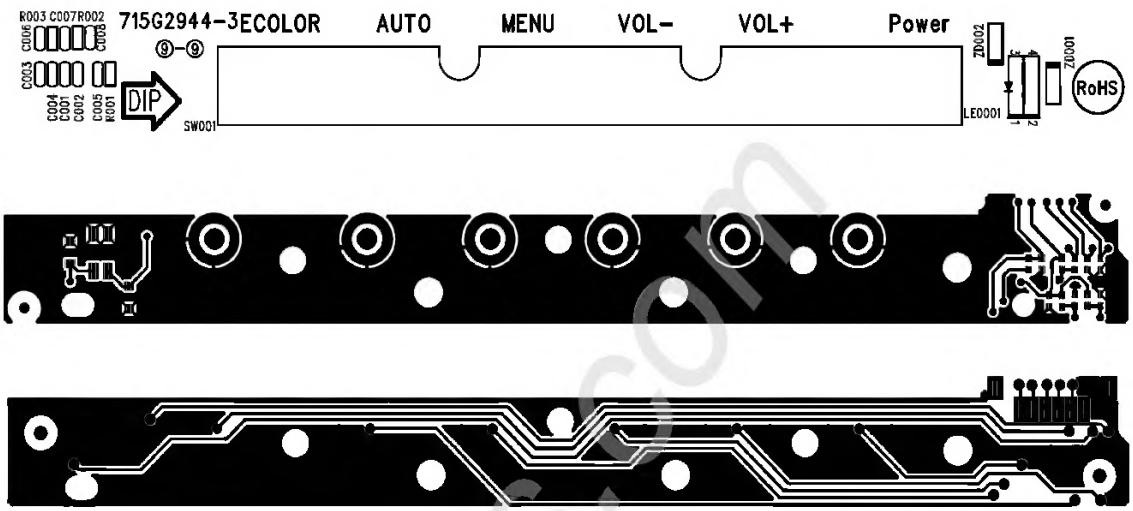
Key Board

715G2944 3



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